



Summer Fellowship Report

KOHA CUSTOMISATION

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Under the guidance of

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Central Library

IIT Bombay

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Acknowledgment

I would like to express my special thanks of gratitude to FOSSEE, IIT Bombay who gave me the golden opportunity to do this summer fellowship with Koha. This fellowship helped me in doing a lot of research and I came to know about so many new things I am really thankful to them. It helped me to enhance my knowledge in software development and I also learnt about various tools and technologies. I feel grateful to have met professionals who guided me through this fellowship period.

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Chapter 1

Introduction

Koha is the first free and open source software library automation package (ILS). Development is sponsored by libraries of varying types and sizes, volunteers, and support companies from around the world. It is extremely customizable. Thus Koha, being quite an efficient ILS, provides the user the flexibility to customise the library and thus, add various features and improve the layout. It is used worldwide on a large scale thus making it a very popular ILMS. In addition, it is a free open source software thereby making it cost-effective as compared to other ILMS available in the market. Also, it has variety of features ranging from involving patrons to generating bills, invoices, sending notices and circulars, etc. Increasingly, specialized libraries such as music libraries, adopt Koha, as its open-source nature offers easier pathways to customization for their particular use cases.

Chapter 2

History of Koha

- Koha was created in 1999 by Katipo Communications for the Horowhenua Library Trust in New Zealand.
- The First installation went live in January 2000.
- By 2010, Koha has been translated from its original English into French, Chinese, Arabic and several other languages. Support for the cataloguing and search standards MARC and Z39.50 was added in 2002 and later sponsored by the Athens County Public Libraries.
- In 2014 the Ministry of Culture (Turkey) started to use Koha -- Devinim version in 1,136 public libraries with more than 17,000,000 items and app. 2,000,000 active users. This is the biggest Koha installation for the moment.

Chapter 3

Technical Requirements:

- **OS- Linux, Windows, Mac OS**
- **Programming Language- Perl**
- **Database- MySQL**
- **Webserver- Apache**

Koha Version Used: 19.11.05

Chapter 4

Modules of Koha:

- Acquisition
- Cataloguing
- Patron Management
- Circulation
- Serial Control
- Report
- OPAC

Chapter 5

Purpose of the project

- The purchase suggestion form in koha is designed such that any patron logged-in koha can make a purchase suggestion via OPAC.
- Hence, if any alma-mater wants to allow only certain category of patrons to make purchase suggestions, it isn't possible with the current koha as it doesn't have this feature.
- Also, the suggestion process involves just one checkpoint i.e. only one STATUS can be selected thereby ending the process.
- Hence, if any institution wants to involve various staff members into the verification of the purchase suggestion process it isn't feasible with the current koha.
- Also, in each step of this book-verification process a mail should be sent to the previous patron which isn't available in current version of Koha.
- Thus, developing all these major features into Koha is *the heart* of this project.

Chapter 6

Objectives

Following were the objectives of the project:

- To restrict some category of patrons from making purchase suggestions.
- To add a feature using which a three-step verification of a newly made purchase suggestion can be performed.
- To design a mail system where-in an e-mail is sent to the concerned authority whenever the status of the purchase suggestion is changed.

Chapter 7

Code Snippets

File: opac.pref

Location: /usr/share/koha/intranet/htdocs/intranet-tmpl/prog/en/modules/admin/preferences

Code:

- pref: OpacSuggestionRestrictCategories

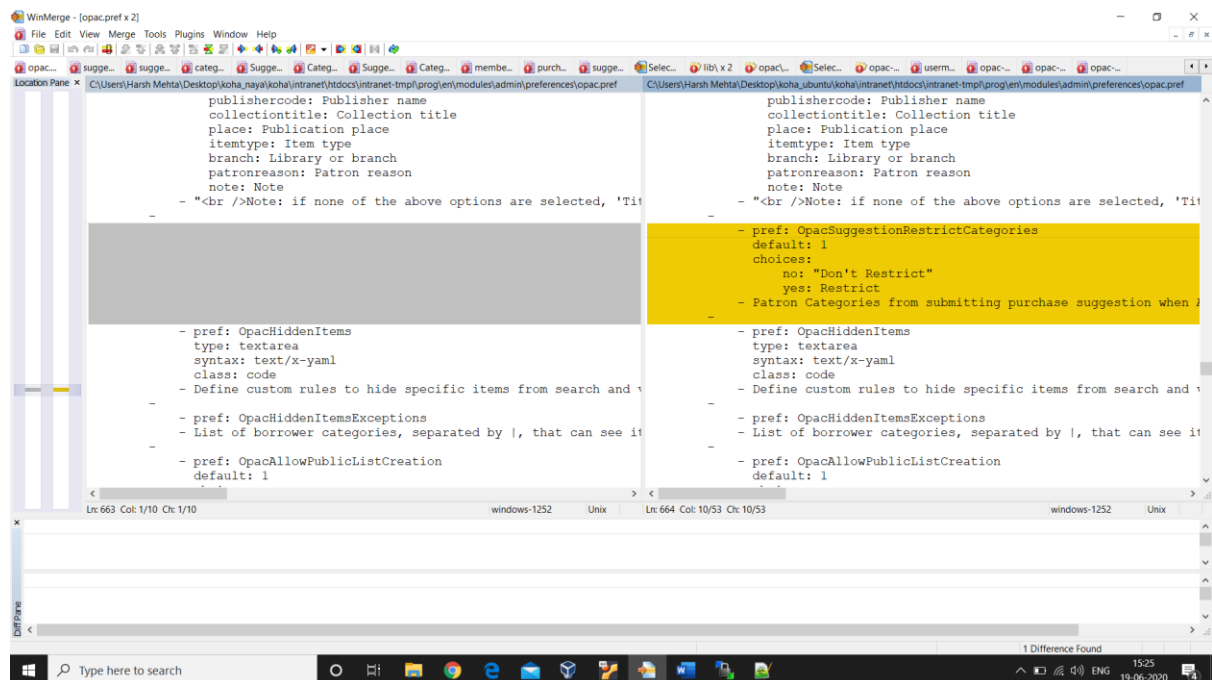
default: 1

choices:

no: "Don't Restrict"

yes: Restrict

- Patron Categories from submitting purchase suggestion when AnonSuggestions preference is turned off.



File:categories.tt

Location: /usr/share/koha/intranet/htdocs/intranet-tmpl/prog/en/modules/admin

Code:

```
[% IF category and category.category_type == 'N' %]<option value="N"
selected="selected">Assistant Librarian</option>[% ELSE %]<option value="N">Assistant
Librarian
</option>[% END %]
```

```
[% IF category and category.category_type == 'J' %]<option value="J"
selected="selected">Central Librarian</option>[% ELSE %]<option value="J">Central Librarian
</option>[% END %]
```

```
</select>
```

```
<span class="required">Required</span>
```

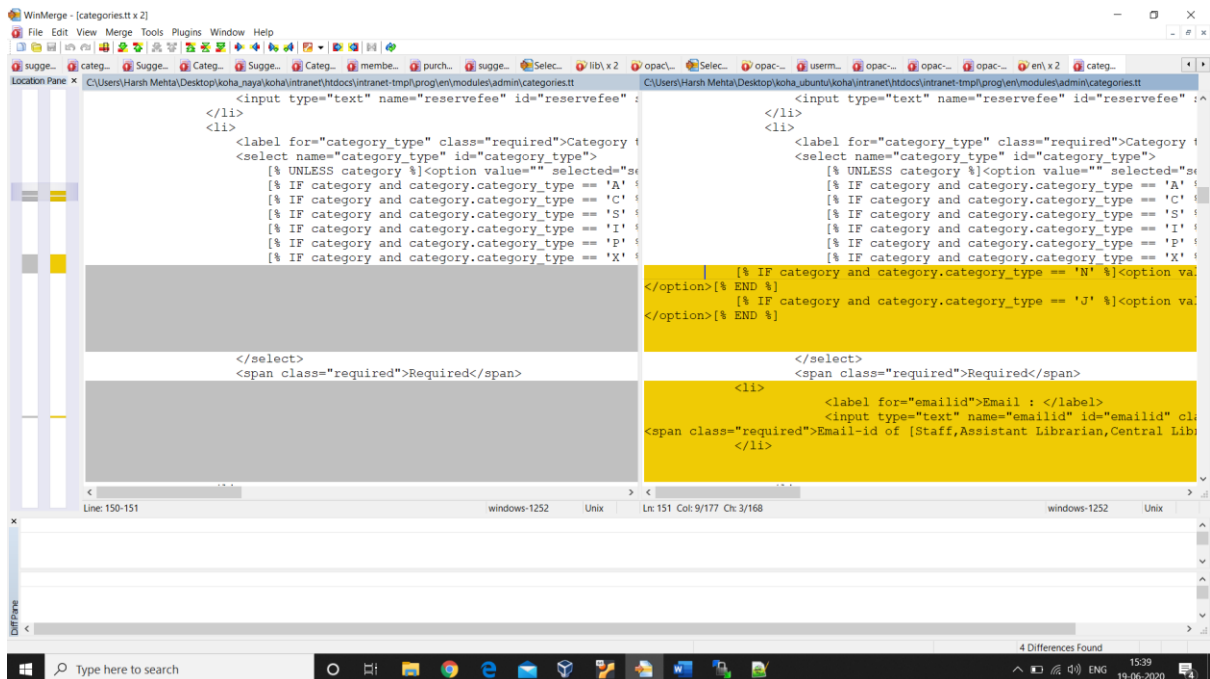
```
<li>
```

```
<label for="emailid">Email : </label>
```

```
<input type="text" name="emailid" id="emailid" class="email" value="[%
category.emailid | html %]"/>
```

```
<span class="required">Email-id of [Staff,Assistant Librarian,Central Librarian]</span>
```

```
</li>
```



```

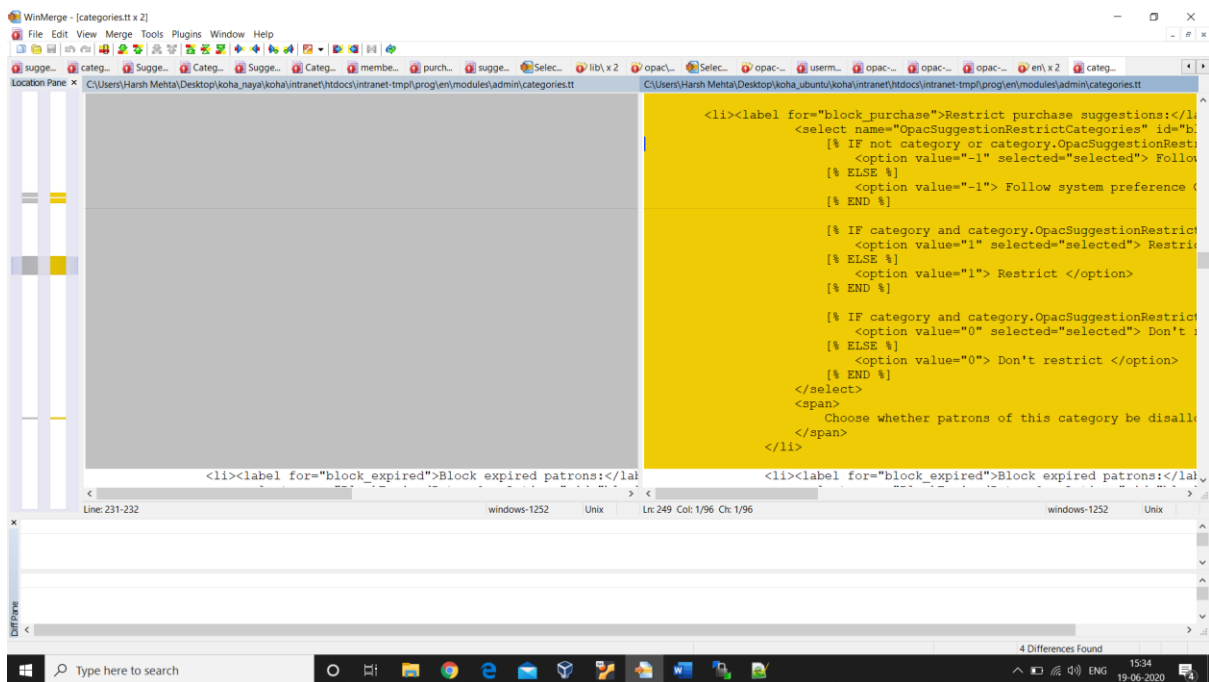
</li><label for="block_purchase">Restrict purchase suggestions:</label>
<select name="OpacSuggestionRestrictCategories" id="block_expired">
  [% IF not category or category.OpacSuggestionRestrictCategories == -1%]
    <option value="-1" selected="selected"> Follow system preference
OpacSuggestionRestrictCategories </option>
  [% ELSE %]
    <option value="-1"> Follow system preference OpacSuggestionRestrictCategories
</option>

  [% END %]

  [% IF category and category.OpacSuggestionRestrictCategories == 1 %]
    <option value="1" selected="selected"> Restrict </option>
  [% ELSE %]
    <option value="1"> Restrict </option>
  [% END %]

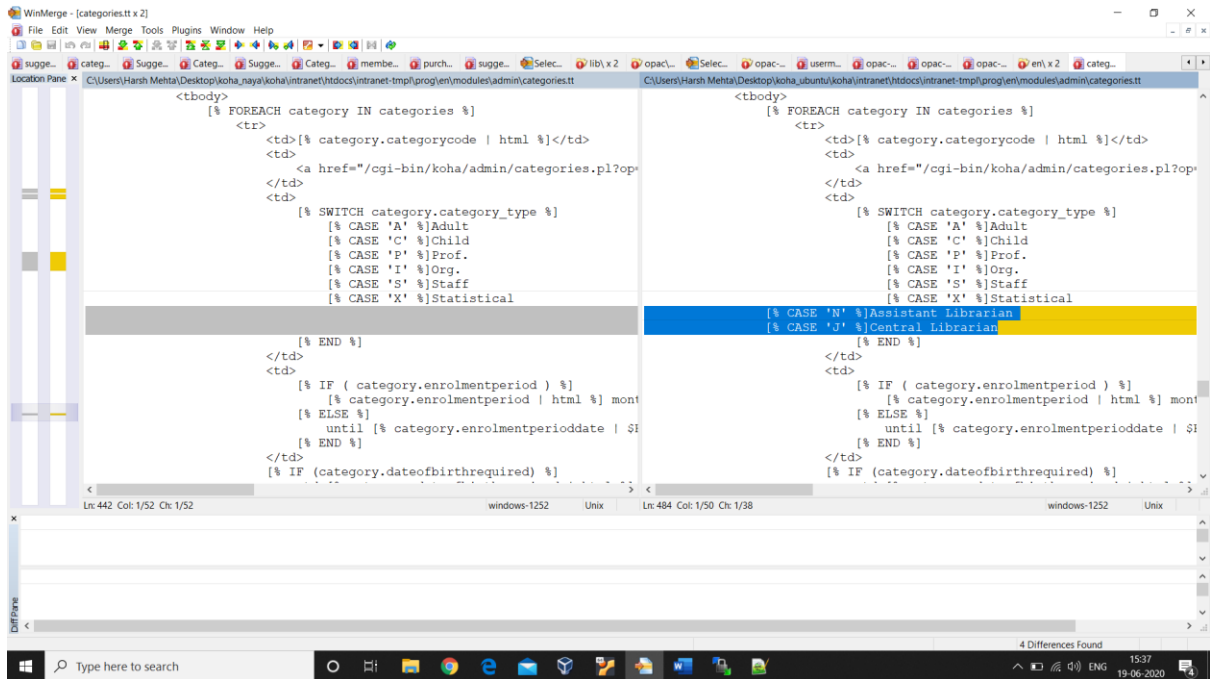
  [% IF category and category.OpacSuggestionRestrictCategories == 0 %]
    <option value="0" selected="selected"> Don't restrict </option>
  [% ELSE %]
    <option value="0"> Don't restrict </option>
  [% END %]
</select>
<span>
  Choose whether patrons of this category be disallowed from making purchase
suggestions on OPAC if AnonSuggestions preference is turned off.
</span>
</li>

```



[% CASE 'N' %]Assistant Librarian

[% CASE 'J' %]Central Librarian



File:suggestion.tt

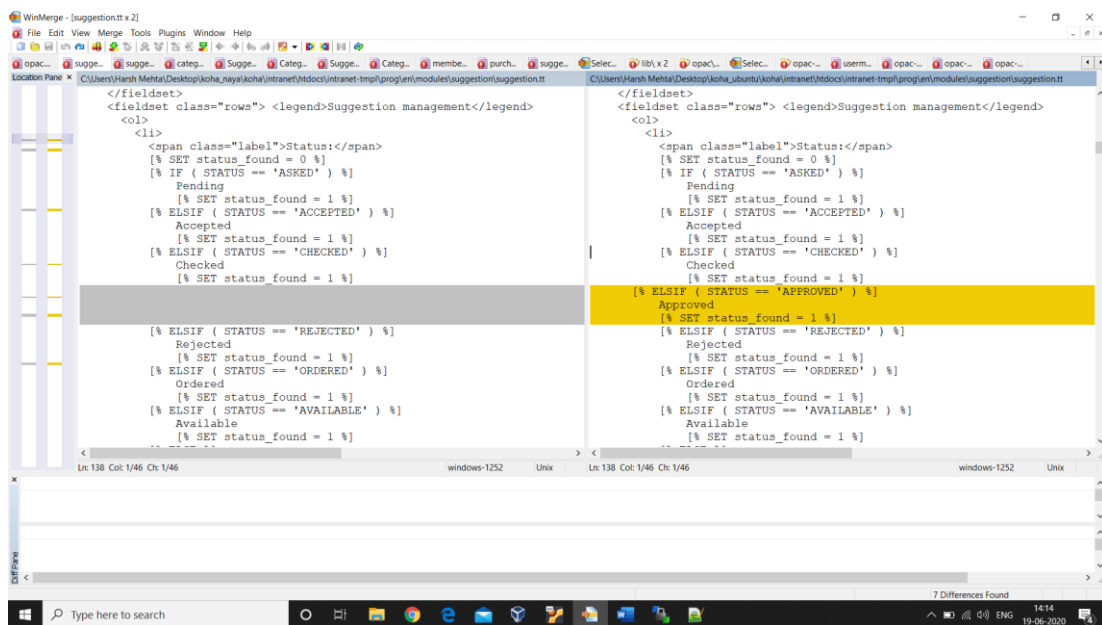
Location: /usr/share/koha/intranet/htdocs/intranet-tmpl/prog/en/modules/suggestion

Code:

```
[% ELSIF ( STATUS == 'APPROVED' ) %]
```

```
Approved
```

```
[% SET status_found = 1 %]
```



```
<span class="label">Reason:</span>
```

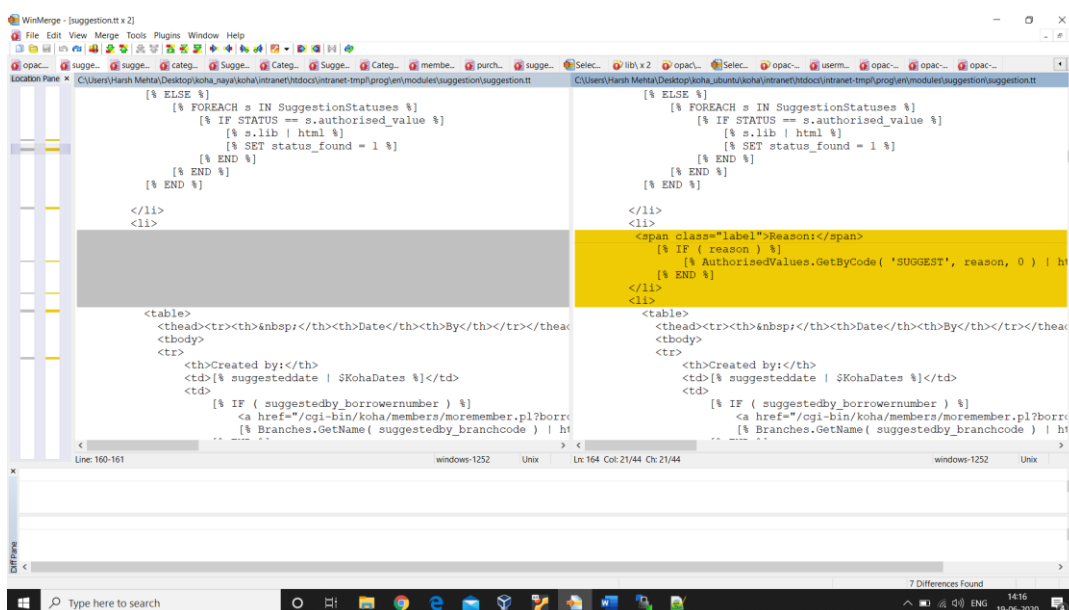
```
[% IF ( reason ) %]
```

```
[% AuthorisedValues.GetByCode( 'SUGGEST', reason, 0 ) | html %]
```

```
[% END %]
```

```
</li>
```

```
<li>
```



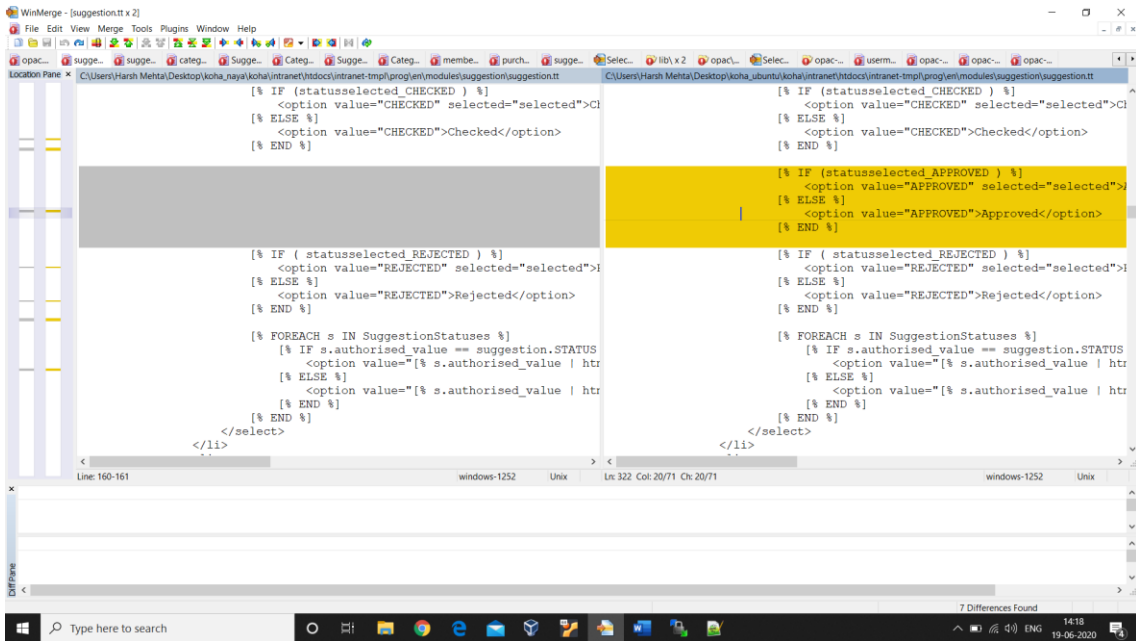
```
[% IF (statusselected_APPROVED ) %]
```

```
<option value="APPROVED" selected="selected">Approved</option>
```

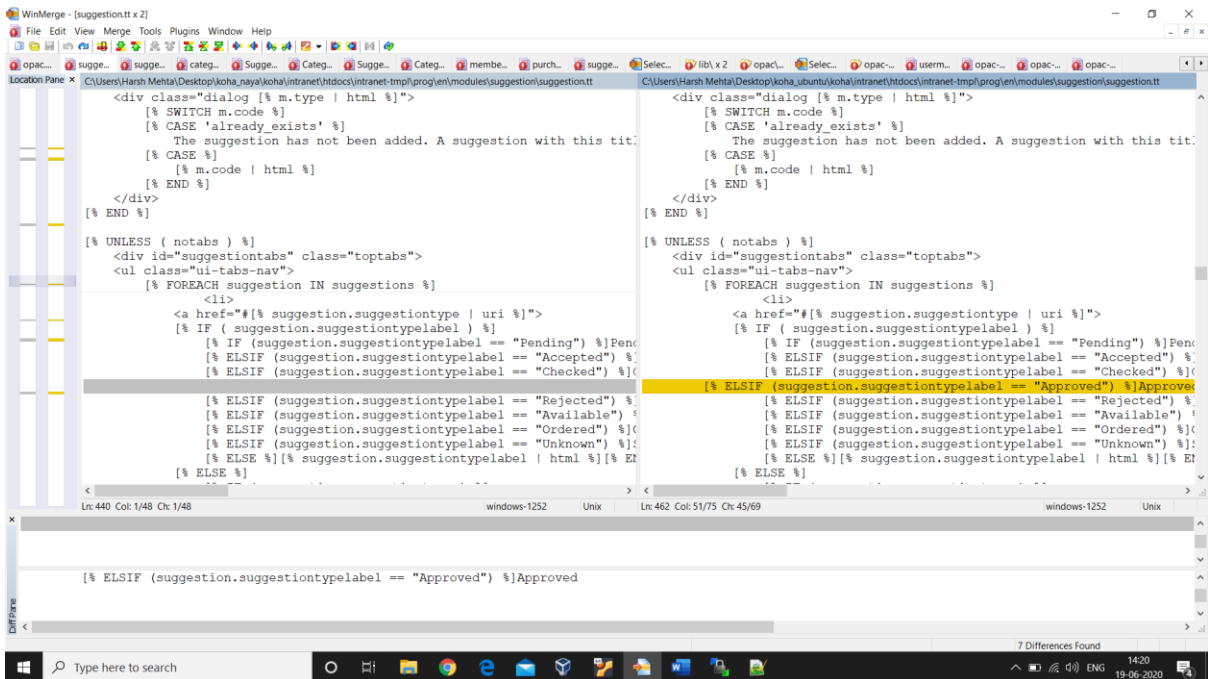
```
[% ELSE %]
```

```
<option value="APPROVED">Approved</option>
```

```
[% END %]
```

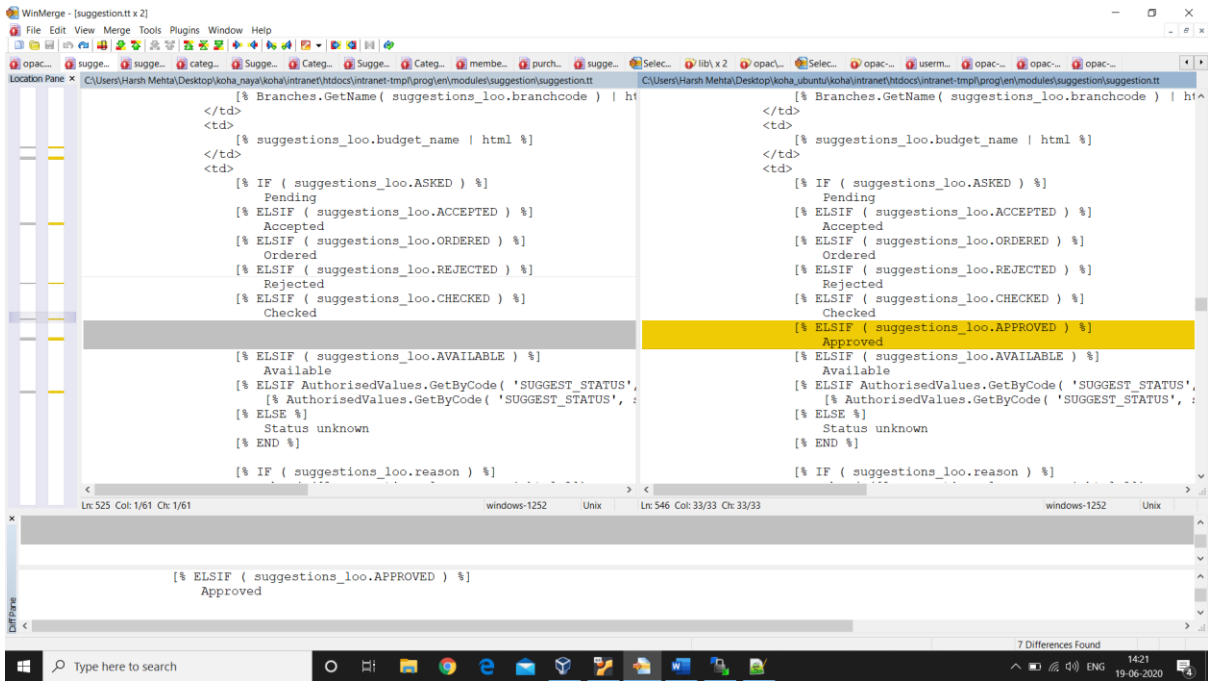


[% ELSIF (suggestion.suggestiontypelabel == "Approved") %]Approved



[% ELSIF (suggestions_loo.APPROVED) %]

Approved



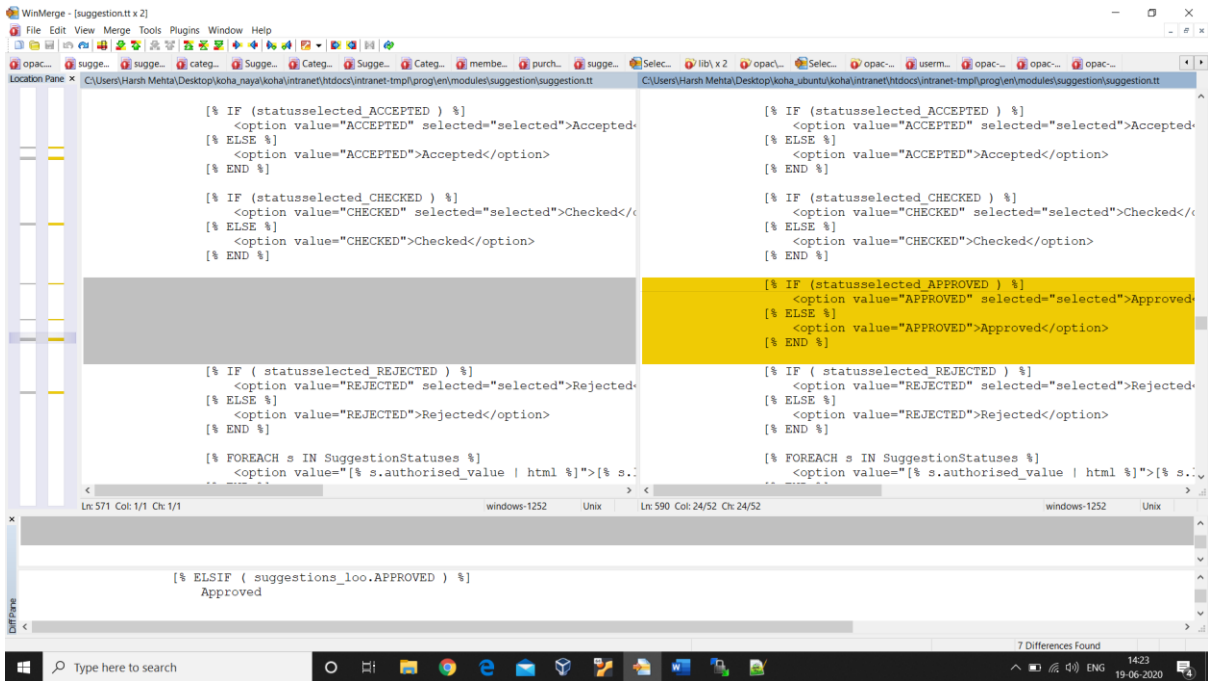
```
[% IF (statusselected_APPROVED ) %]
```

```
<option value="APPROVED" selected="selected">Approved</option>
```

```
[% ELSE %]
```

```
<option value="APPROVED">Approved</option>
```

```
[% END %]
```



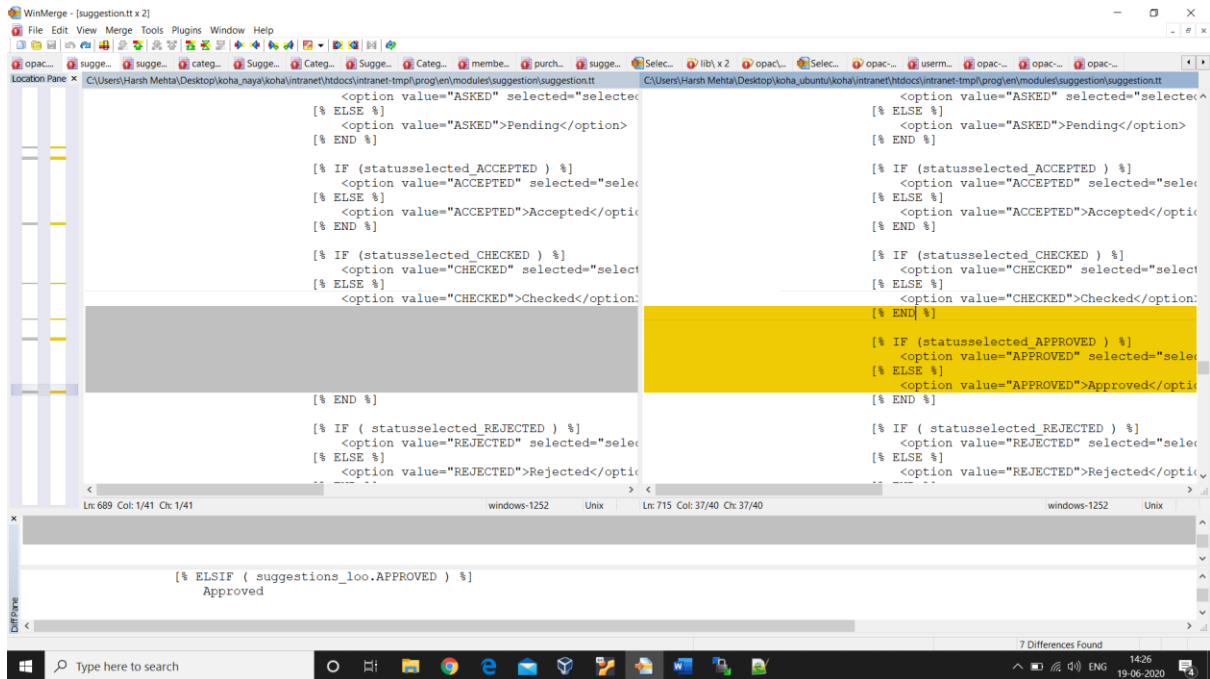
[% END %]

[% IF (statusselected_APPROVED) %]

<option value="APPROVED" selected="selected">Approved</option>

[% ELSE %]

<option value="APPROVED">Approved</option>

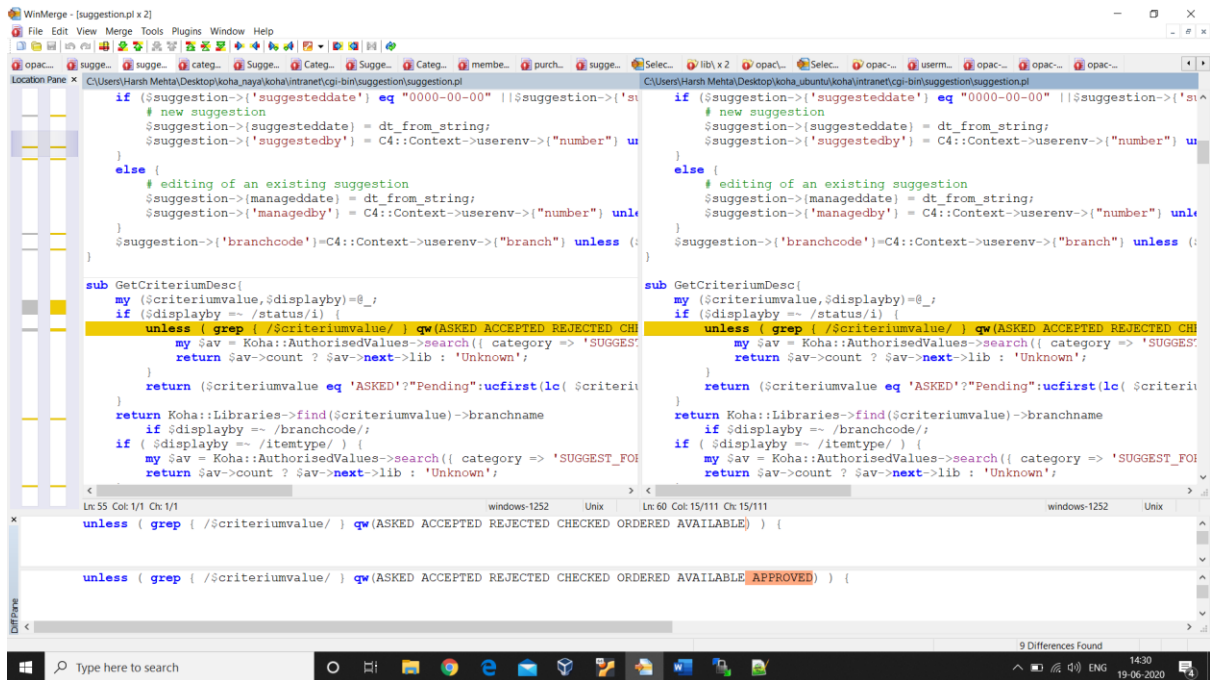


File: /usr/share/koha/intranet/cgi-bin/suggestion

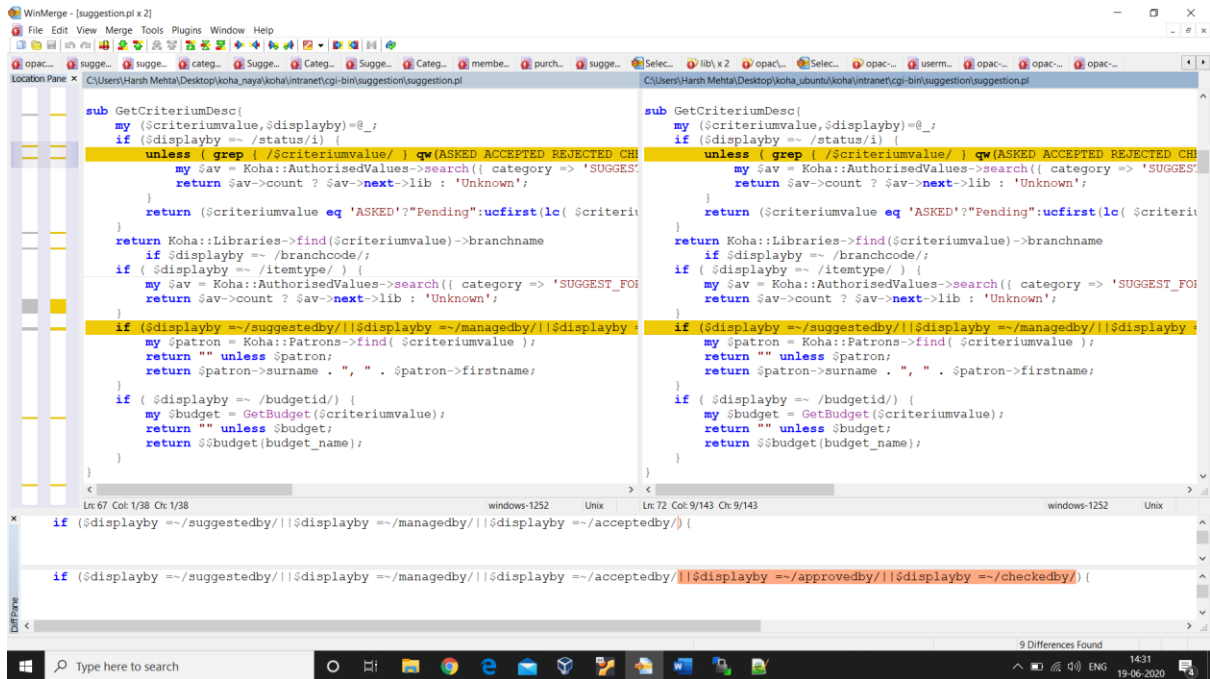
Location:suggestion.pl

Code:

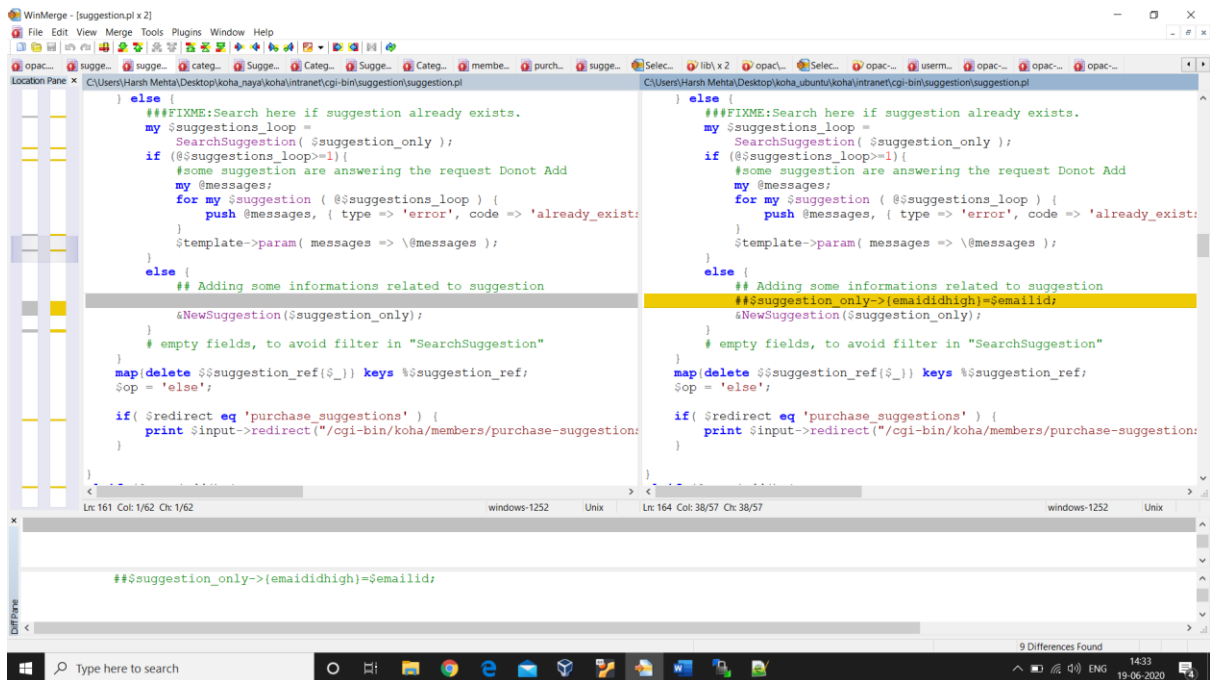
```
unless ( grep { /$criteriumvalue/ } qw(ASKED ACCEPTED REJECTED CHECKED  
ORDERED AVAILABLE APPROVED) ) {
```



```
if ($displayby =~/suggestedby/||$displayby =~/managedby/||$displayby =~/acceptedby/||$displayby
=~/approvedby/||$displayby =~/checkedby/){
```



```
##$suggestion_only->{emailidhigh}=$emailid;
```

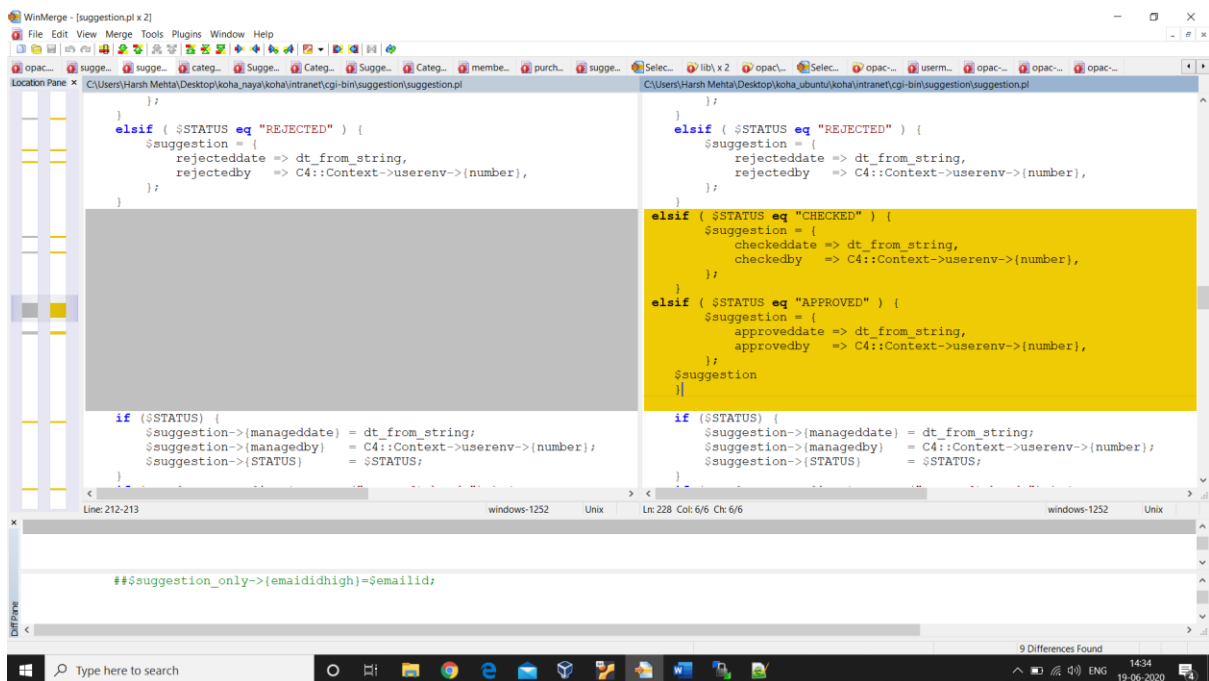



```

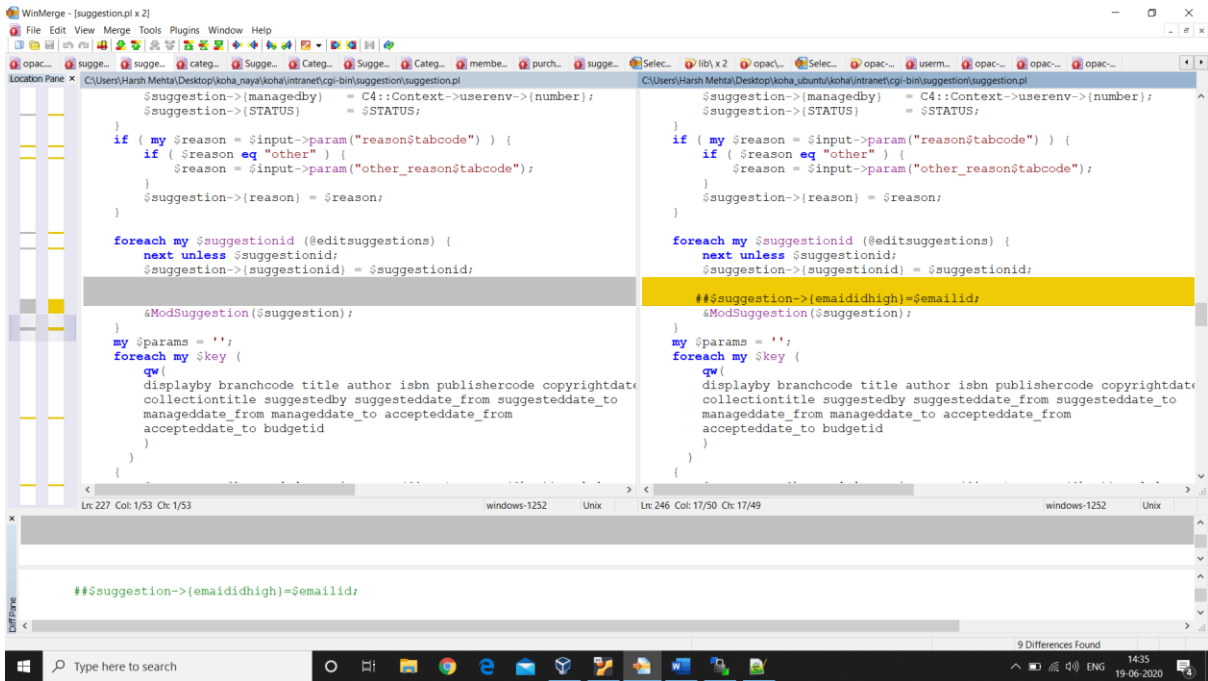
elseif ( $STATUS eq "CHECKED" ) {
    $suggestion = {
        checkeddate => dt_from_string,
        checkedby  => C4::Context->userenv->{number},
    };
}

elseif ( $STATUS eq "APPROVED" ) {
    $suggestion = {
        approveddate => dt_from_string,
        approvedby  => C4::Context->userenv->{number},
    };
    $suggestion
}

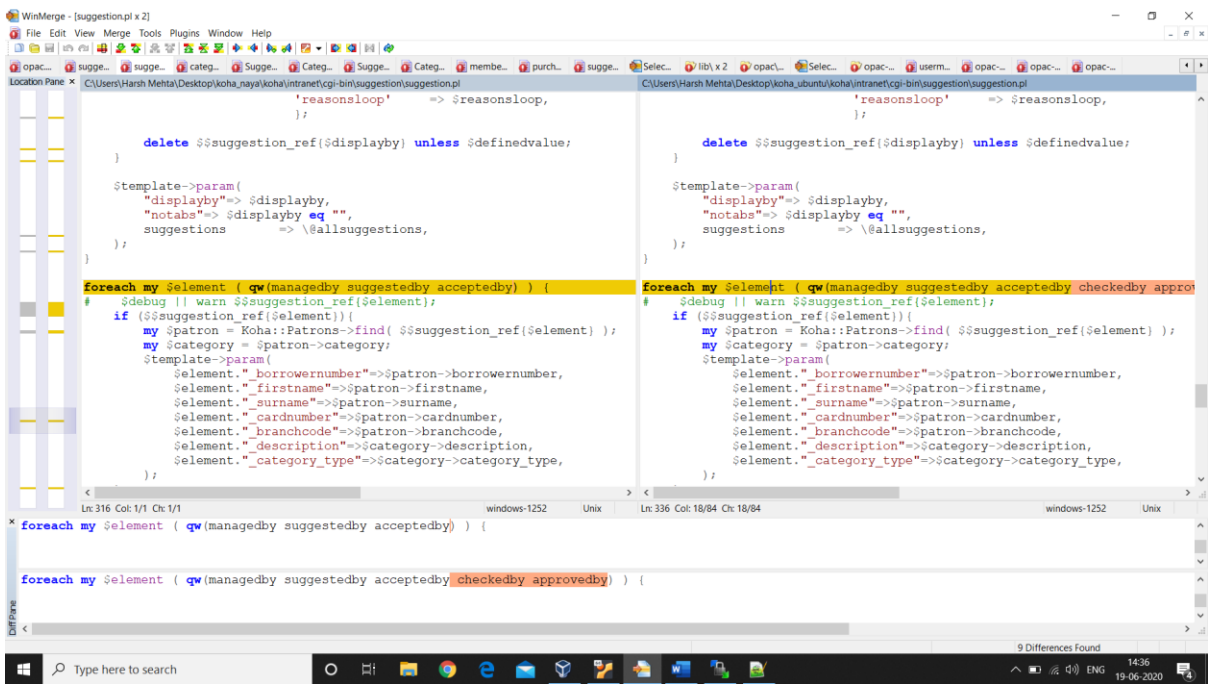
```



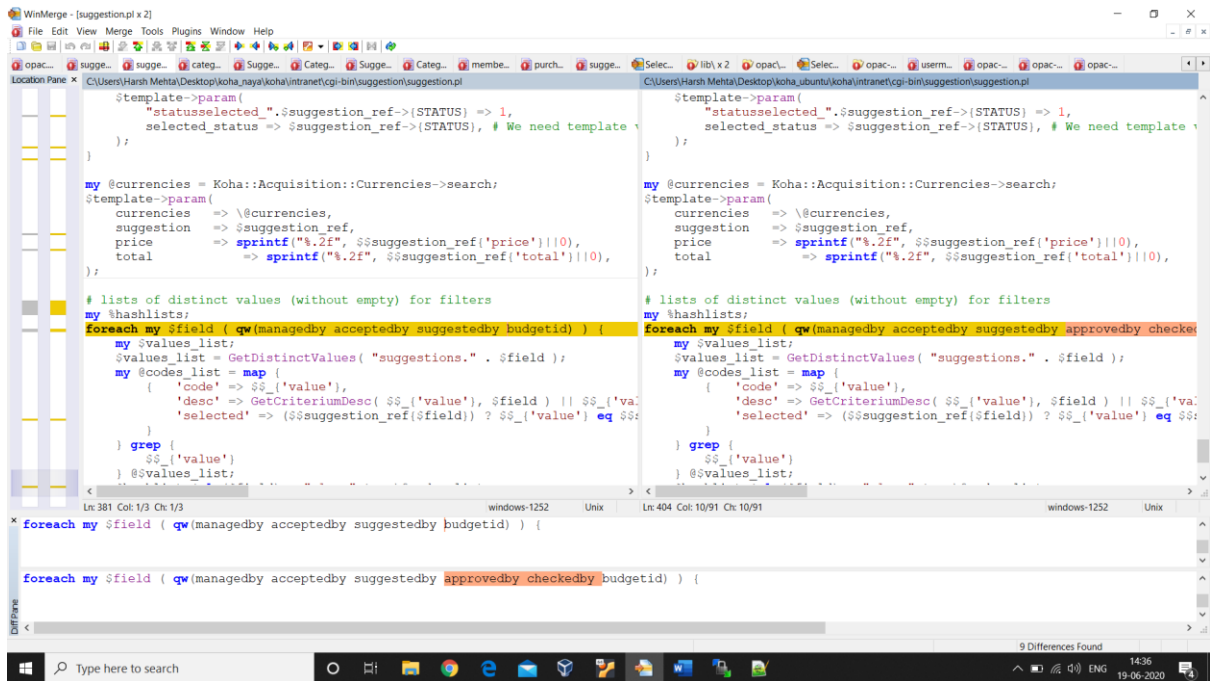
```
##$suggestion->{emaididhigh}=$emailid;
```



foreach my \$element (qw(managedby suggestedby acceptedby checkedby approvedby)) {



```
foreach my $field ( qw(managedby acceptedby suggestedby approvedby checkedby budgetid) ) {
```



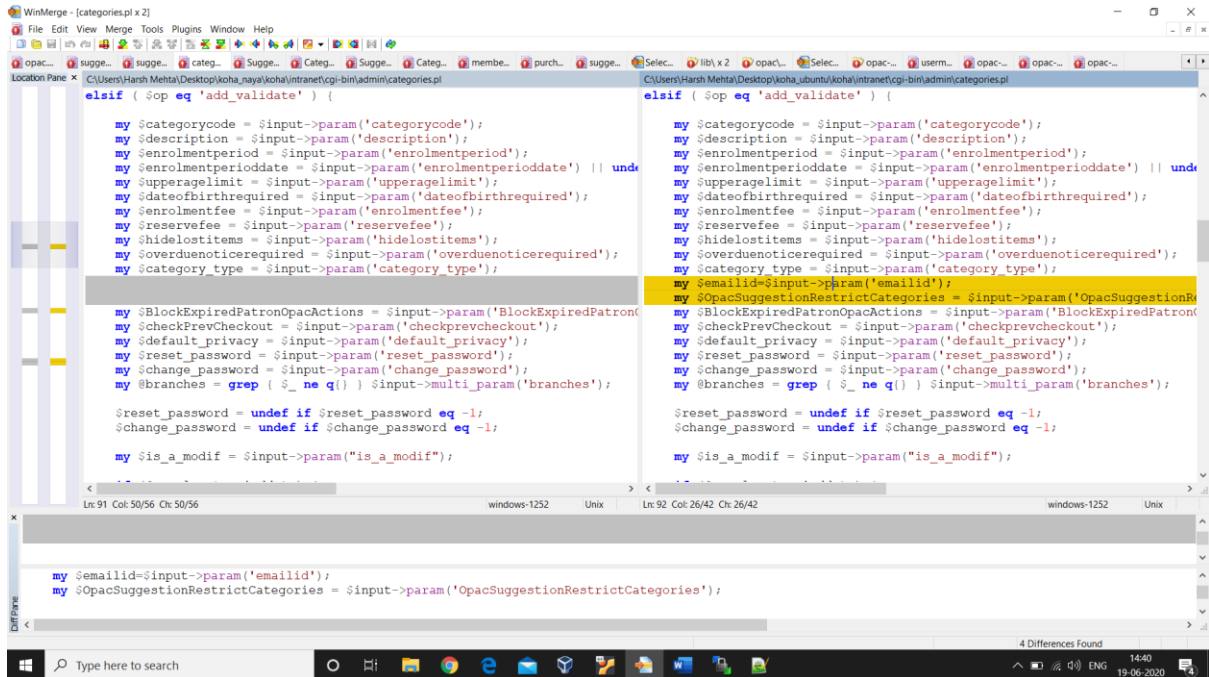
File:categories.pl

Location: /usr/share/koha/intranet/cgi-bin/admin

Code:

```
my $emailid=$input->param('emailid');
```

```
my $OpacSuggestionRestrictCategories = $input->param('OpacSuggestionRestrictCategories');
```



```
WinMerge - [categories.pl x 2]
File Edit View Merge Tools Plugins Window Help
Location Pane x
C:\Users\Harsh Mehta\Desktop\koha_naya\koha\intranet\cgi-bin\admin\categories.pl
C:\Users\Harsh Mehta\Desktop\koha_ubuntu\koha\intranet\cgi-bin\admin\categories.pl

elseif ( $op eq 'add_validate' ) {
my $categorycode = $input->param('categorycode');
my $description = $input->param('description');
my $enrolmentperiod = $input->param('enrolmentperiod');
my $enrolmentperioddate = $input->param('enrolmentperioddate') || undef;
my $upperagelimit = $input->param('upperagelimit');
my $dateofbirthrequired = $input->param('dateofbirthrequired');
my $enrolmentfee = $input->param('enrolmentfee');
my $reservefee = $input->param('reservefee');
my $hidelostitems = $input->param('hidelostitems');
my $overduenoticerequired = $input->param('overduenoticerequired');
my $category type = $input->param('category type');

my $BlockExpiredPatronOpacActions = $input->param('BlockExpiredPatronOpacActions');
my $checkprevcheckout = $input->param('checkprevcheckout');
my $default_privacy = $input->param('default_privacy');
my $reset_password = $input->param('reset_password');
my $change_password = $input->param('change_password');
my @branches = grep { $_ ne q{} } $input->multi_param('branches');

$reset_password = undef if $reset_password eq -1;
$change_password = undef if $change_password eq -1;

my $is_a_modif = $input->param("is_a_modif");

elseif ( $op eq 'add_validate' ) {
my $categorycode = $input->param('categorycode');
my $description = $input->param('description');
my $enrolmentperiod = $input->param('enrolmentperiod');
my $enrolmentperioddate = $input->param('enrolmentperioddate') || undef;
my $upperagelimit = $input->param('upperagelimit');
my $dateofbirthrequired = $input->param('dateofbirthrequired');
my $enrolmentfee = $input->param('enrolmentfee');
my $reservefee = $input->param('reservefee');
my $hidelostitems = $input->param('hidelostitems');
my $overduenoticerequired = $input->param('overduenoticerequired');
my $category type = $input->param('category type');
my $emailid=$input->param('emailid');
my $OpacSuggestionRestrictCategories = $input->param('OpacSuggestionRestrictCategories');

my $BlockExpiredPatronOpacActions = $input->param('BlockExpiredPatronOpacActions');
my $checkprevcheckout = $input->param('checkprevcheckout');
my $default_privacy = $input->param('default_privacy');
my $reset_password = $input->param('reset_password');
my $change_password = $input->param('change_password');
my @branches = grep { $_ ne q{} } $input->multi_param('branches');

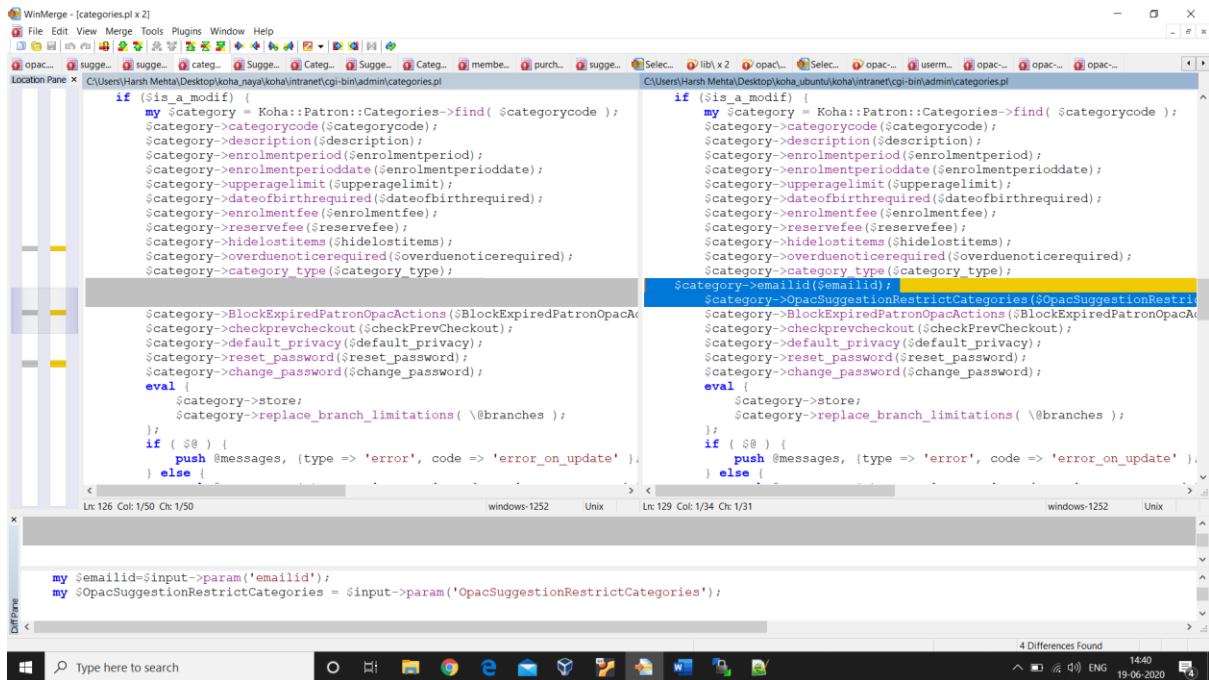
$reset_password = undef if $reset_password eq -1;
$change_password = undef if $change_password eq -1;

my $is_a_modif = $input->param("is_a_modif");

4 Differences Found
14:40
19-06-2020
```

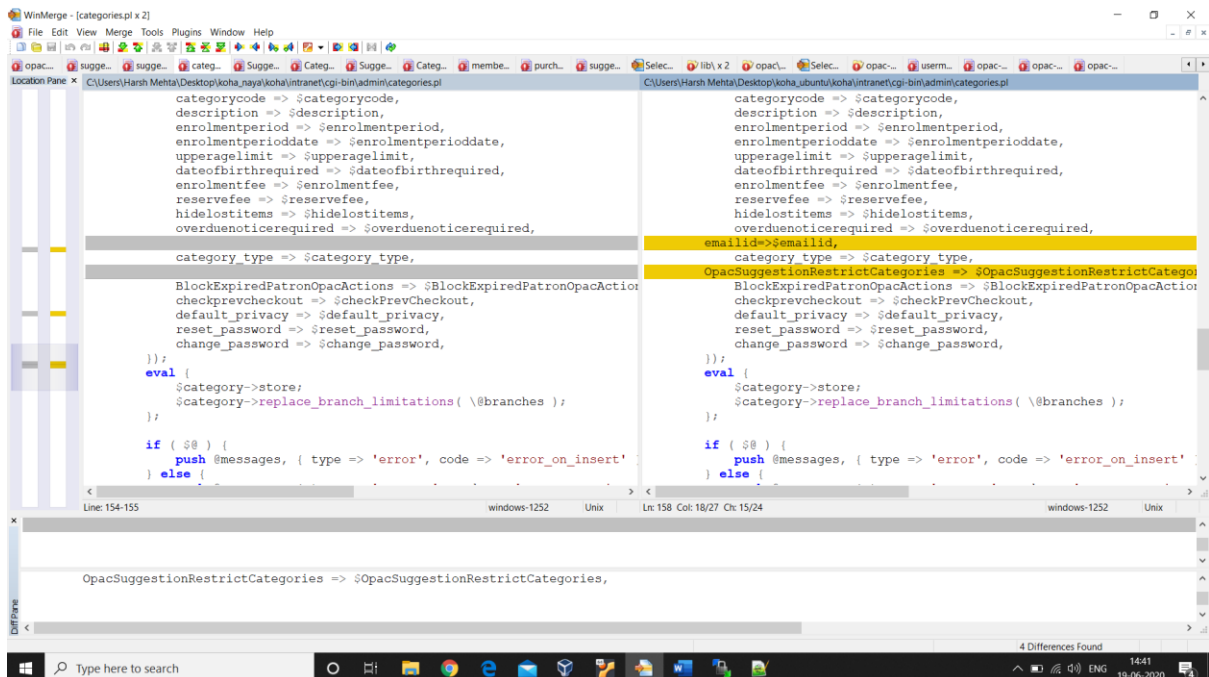
`$category->emailid($emailid);`

`$category->OpacSuggestionRestrictCategories($OpacSuggestionRestrictCategories);`



`emailid=>$emailid,`

`OpacSuggestionRestrictCategories => $OpacSuggestionRestrictCategories,`

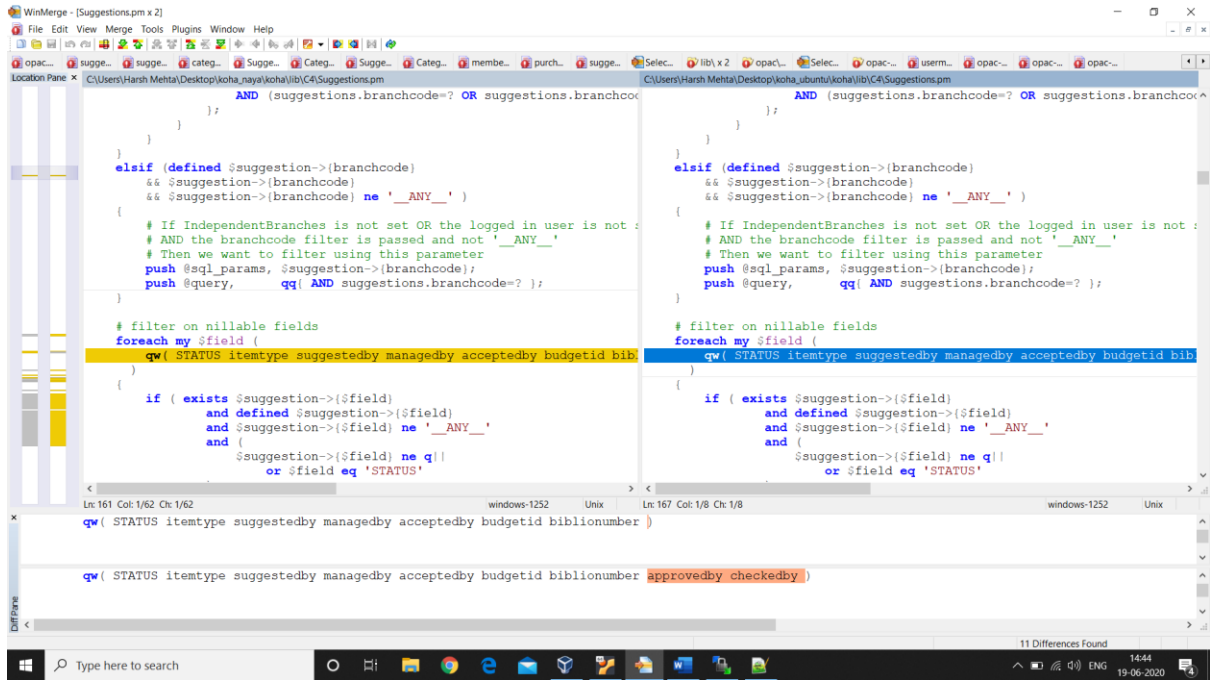


File:suggestions.pm

Location: /usr/share/koha/lib/C4

Code:

```
qw( STATUS itemtype suggestedby managedby acceptedby budgetid biblionumber approvedby checkedby )
```



```
WinMerge - [Suggestions.pm x 2]
File Edit View Merge Tools Plugins Window Help
Location Pane x [C:\Users\Harsh Mehta\Desktop\koha_naya\koha\lib\C4\Suggestions.pm] [C:\Users\Harsh Mehta\Desktop\koha_sivanta\koha\lib\C4\Suggestions.pm]
AND ( suggestions.branchcode=? OR suggestions.branchcode=? )
}
}
elseif ( defined $suggestion->(branchcode)
&& $suggestion->(branchcode)
&& $suggestion->(branchcode) ne '__ANY__' )
{
# If IndependentBranches is not set OR the logged in user is not :
# AND the branchcode filter is passed and not '__ANY__'
# Then we want to filter using this parameter
push @sql_params, $suggestion->(branchcode);
push @query, qq( AND suggestions.branchcode=? );
}

# filter on nillable fields
foreach my $field (
qw( STATUS itemtype suggestedby managedby acceptedby budgetid bib
)
{
if ( exists $suggestion->{$field}
and defined $suggestion->{$field}
and $suggestion->{$field} ne '__ANY__'
and (
$suggestion->{$field} ne q||
or $field eq 'STATUS'
)
)
}
}

}
}
elseif ( defined $suggestion->(branchcode)
&& $suggestion->(branchcode)
&& $suggestion->(branchcode) ne '__ANY__' )
{
# If IndependentBranches is not set OR the logged in user is not :
# AND the branchcode filter is passed and not '__ANY__'
# Then we want to filter using this parameter
push @sql_params, $suggestion->(branchcode);
push @query, qq( AND suggestions.branchcode=? );
}

# filter on nillable fields
foreach my $field (
qw( STATUS itemtype suggestedby managedby acceptedby budgetid bib
approvedby checkedby )
)
{
if ( exists $suggestion->{$field}
and defined $suggestion->{$field}
and $suggestion->{$field} ne '__ANY__'
and (
$suggestion->{$field} ne q||
or $field eq 'STATUS'
)
)
}
}

}
}

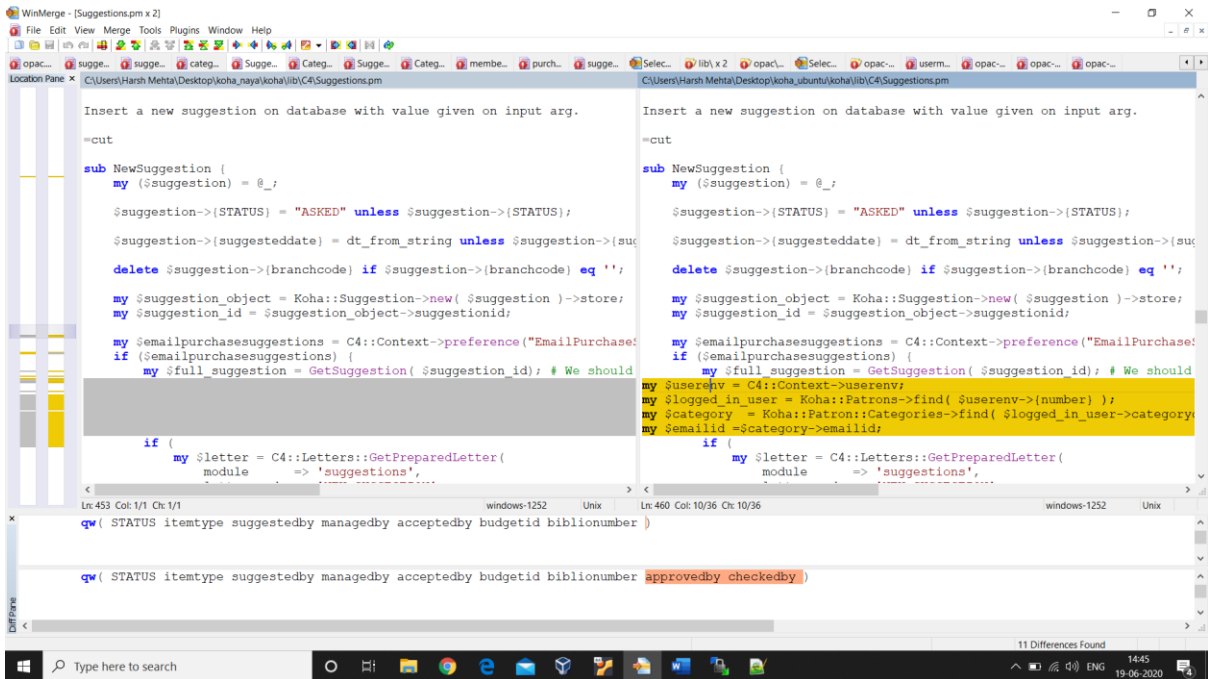
Ln: 161 Col: 1/62 Chr: 1/62 windows-1252 Unix Ln: 167 Col: 1/8 Chr: 1/8 windows-1252 Unix
qw( STATUS itemtype suggestedby managedby acceptedby budgetid biblionumber )
qw( STATUS itemtype suggestedby managedby acceptedby budgetid biblionumber approvedby checkedby )
DiffPane
11 Differences Found 14:44 19-06-2020
```

```
my $userenv = C4::Context->userenv;
```

```
my $logged_in_user = Koha::Patrons->find( $userenv->{number} );
```

```
my $category = Koha::Patron::Categories->find( $logged_in_user->categorycode );
```

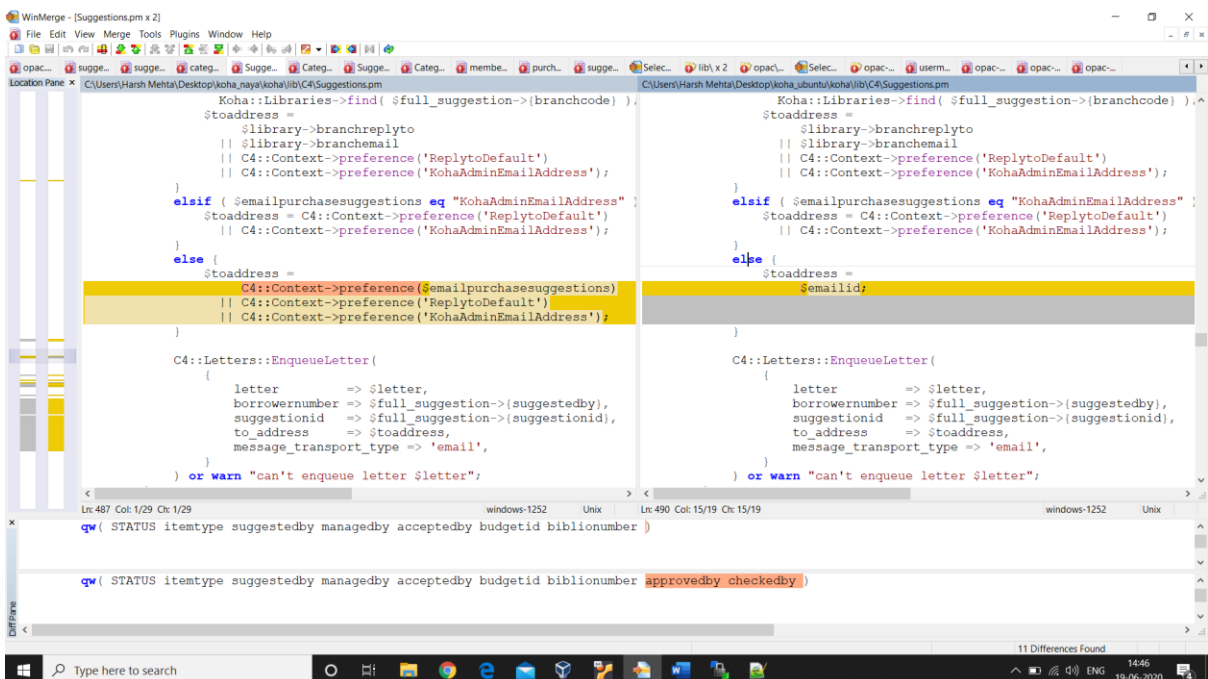
```
my $emailid=$category->emailid;
```



```

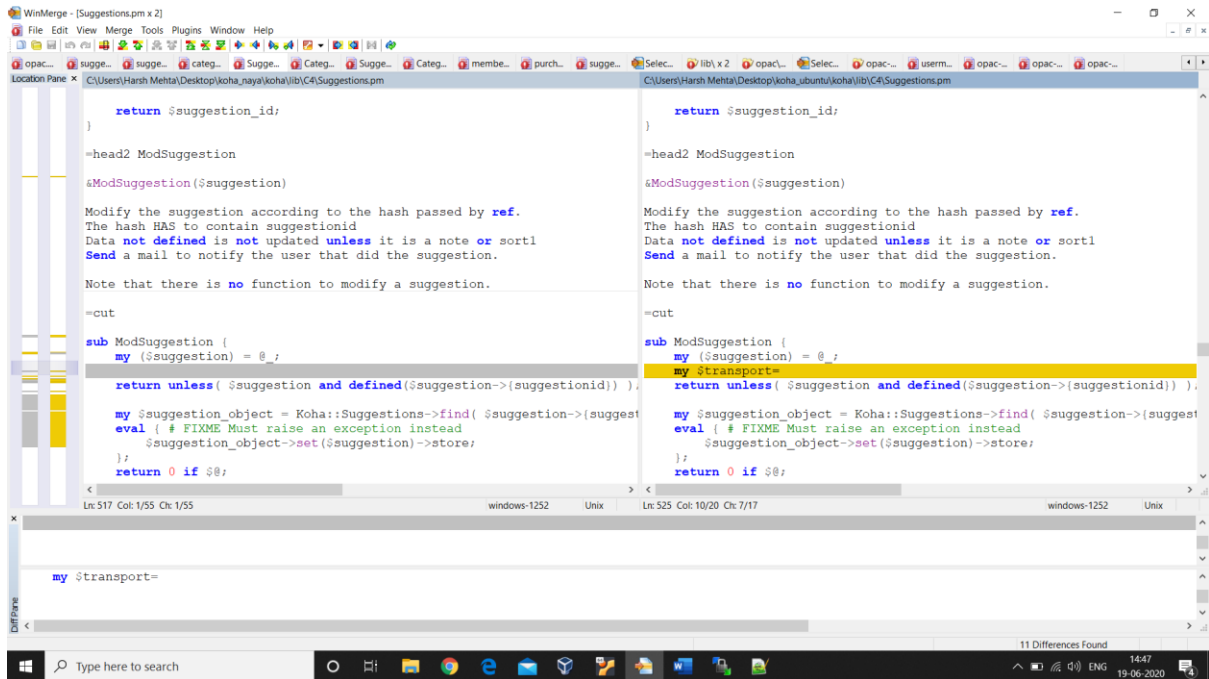
else {
  $toaddress =
  $emailid;
}

```



my \$transport=

return unless(\$suggestion and defined(\$suggestion->{suggestionid}));



Replace the code from line 523 to 664 with this below code

```

sub ModSuggestion {
    my ($suggestion) = @_;
    my $transport=
return unless( $suggestion and defined($suggestion->{suggestionid}) );

my $suggestion_object = Koha::Suggestions->find( $suggestion->{suggestionid} );
eval { # FIXME Must raise an exception instead
    $suggestion_object->set($suggestion)->store;
};
return 0 if $@;

if ( $suggestion->{STATUS} && $suggestion_object->suggestedby ) {

    # fetch the entire updated suggestion so that we can populate the letter
    my $full_suggestion = GetSuggestion( $suggestion->{suggestionid} );

    my $patron = Koha::Patrons->find( $full_suggestion->{suggestedby} );
my $userenv = C4::Context->userenv;
my $logged_in_user = Koha::Patrons->find( $userenv->{number} );

```



```

my $category = Koha::Patron::Categories->find( $logged_in_user->categorycode );
my $emailid =$category->emailid;

    my $transport = (C4::Context->preference("FallbackToSMSIfNoEmail")) && ($patron->smsalernumber) && (!$patron->email) ? 'sms' : 'email';
    if (
        my $letter = C4::Letters::GetPreparedLetter(
            module => 'suggestions',
            letter_code => $full_suggestion->{STATUS},
            branchcode => $full_suggestion->{branchcode},
            lang => $patron->lang,
            tables => {
                'branches' => $full_suggestion->{branchcode},
                'borrowers' => $full_suggestion->{suggestedby},
                'suggestions' => $full_suggestion,
                'biblio' => $full_suggestion->{biblionumber},
            },
        )
    )
    {
        if ($transport eq 'email' and $patron->email ) {
            C4::Letters::EnqueueLetter(
                {
                    letter => $letter,
                    borrowernumber => $full_suggestion->{suggestedby},
                    suggestionid => $full_suggestion->{suggestionid},
                    LibraryName => C4::Context->preference("LibraryName"),
                    message_transport_type => $transport,
                }
            ) or warn "can't enqueue letter $letter";
        }
    }

if ($transport eq 'sms' and $patron->smsalernumber) {

```

```

C4::Letters::EnqueueLetter(
    {
        letter      => $letter,
        borrowernumber => $full_suggestion->{suggestedby},
        suggestionid  => $full_suggestion->{suggestionid},
        LibraryName   => C4::Context->preference("LibraryName"),
        message_transport_type => $transport,
    }
) or warn "can't enqueue letter $letter";
}

if ($emailid && $emailid ne "") {
    if ( $suggestion->{"STATUS"} =~ /ACCEPTED|CHECKED/)
    {
        C4::Letters::EnqueueLetter(
            {
                letter      => $letter,
                borrowernumber => $full_suggestion->{suggestedby},
                suggestionid  => $full_suggestion->{suggestionid},
                LibraryName   => C4::Context->preference("LibraryName"),
                to_address    => $emailid,
                message_transport_type => $transport,
            }
        ) or warn "can't enqueue letter $letter";
    }
}

if ( $suggestion->{"STATUS"} =~ /APPROVED/)
{
    my $facultyNumber = $full_suggestion->{suggestedby};
    my $facultydet = Koha::Patrons->find( $facultyNumber);
    my $faccategory = Koha::Patron::Categories->find( $facultydet->categorycode );
}

```

```

my $facemailid =$faccategory->emailid;
my $staffNumber =$full_suggestion->{checkedby};
my $staffdet="";
my $staffcategory="";
my $staffemailid="";
if ($staffNumber) {
    $staffdet = Koha::Patrons->find( $staffNumber);
    $staffcategory = Koha::Patron::Categories->find( $staffdet->categorycode );
    $staffemailid =$staffcategory->emailid;
}
my $alNumber =$full_suggestion->{acceptedby};
my $aldet="";
my $alcategory="";
my $alemailid="";
if (defined($alNumber )){
    $aldet = Koha::Patrons->find( $alNumber);
    $alcategory = Koha::Patron::Categories->find( $aldet->categorycode );
    $alemailid =$alcategory->emailid;
}

if($facultyNumber){

                                C4::Letters::EnqueueLetter(
                                    {
                                        letter      => $letter,
                                        borrowernumber => $full_suggestion-
>{suggestedby},
                                        suggestionid => $full_suggestion-
>{suggestionid},
                                        LibraryName => C4::Context-
>preference("LibraryName"),
                                        to_address  => $facemailid,
                                        message_transport_type => $transport,

```

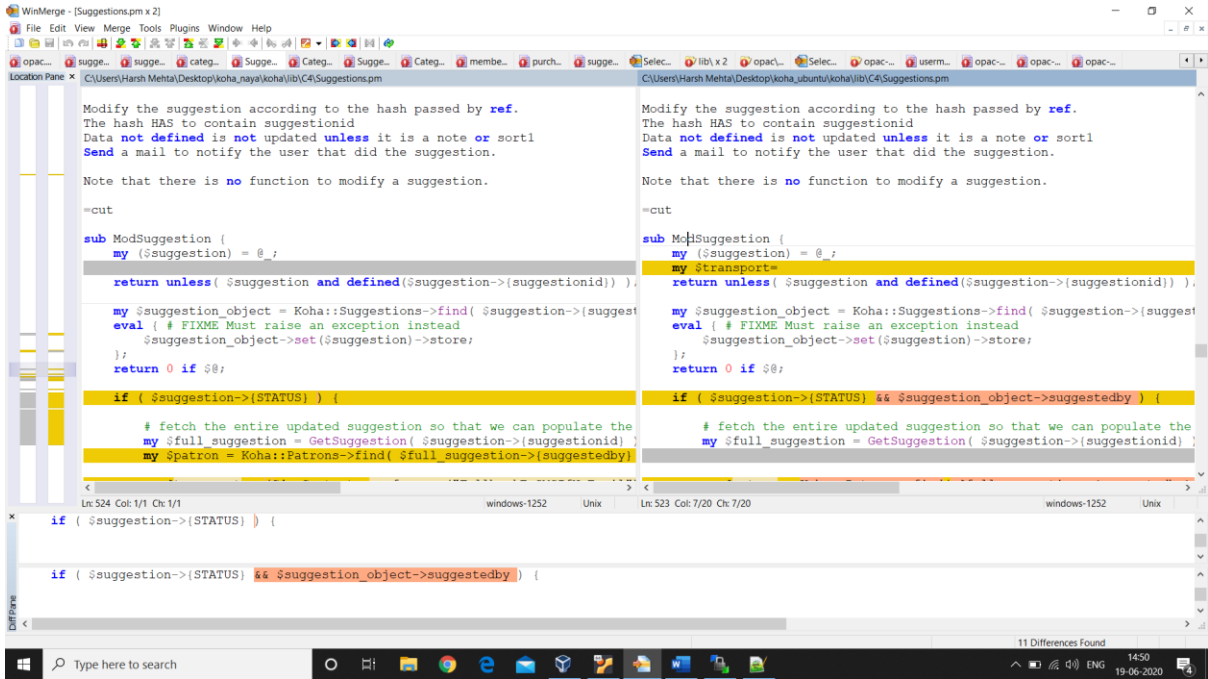
```

    }
    ) or warn "can't enqueue letter $letter";
}
if($staffemailid){
    C4::Letters::EnqueueLetter(
        {
            letter      => $letter,
            borrowernumber => $full_suggestion-
>{checkedby},
            suggestionid => $full_suggestion-
>{suggestionid},
            LibraryName => C4::Context-
>preference("LibraryName"),
            to_address  => $staffemailid,
            message_transport_type => $transport,
        }
    ) or warn "can't enqueue letter $letter";
}
if($salemailid){
    C4::Letters::EnqueueLetter(
        {
            letter      => $letter,
            borrowernumber => $full_suggestion-
>{acceptedby},
            suggestionid => $full_suggestion-
>{suggestionid},
            LibraryName => C4::Context-
>preference("LibraryName"),
            to_address  => $salemailid,
            message_transport_type => $transport,
        }
    ) or warn "can't enqueue letter $letter";
}

```

}

}



File:category.pm

Location: /usr/share/koha/lib/Koha/Patron

Code:

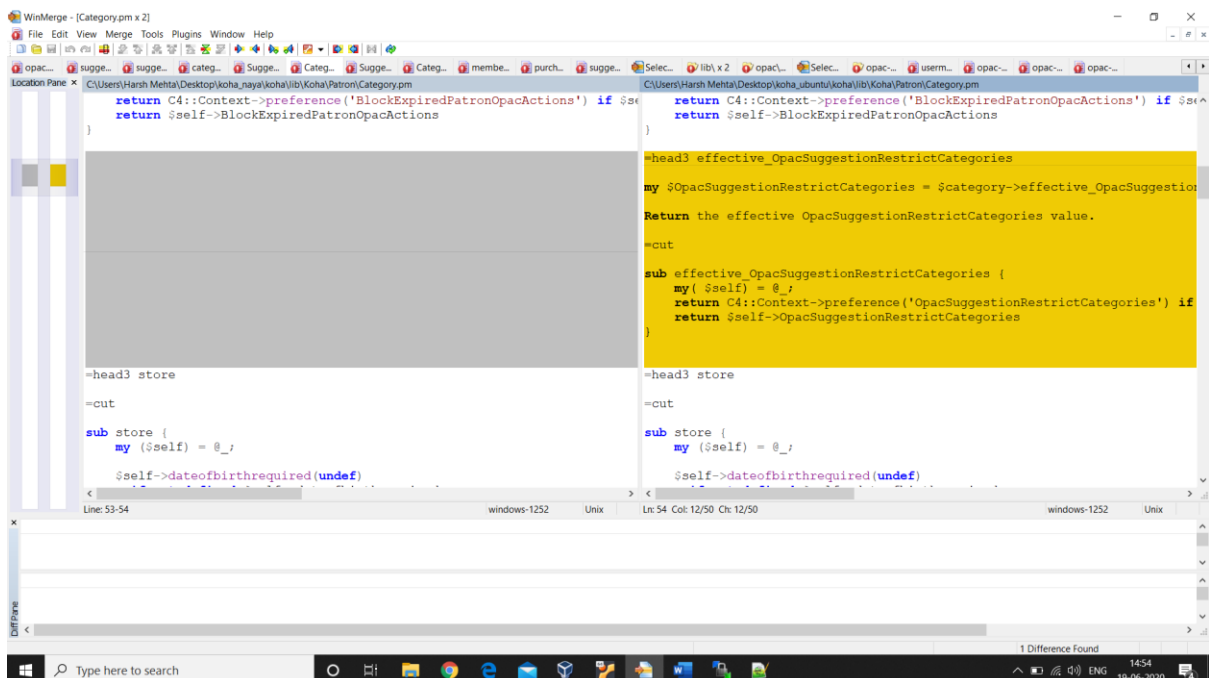
```
=head3 effective_OpacSuggestionRestrictCategories
```

```
my $OpacSuggestionRestrictCategories = $category->effective_OpacSuggestionRestrictCategories
```

Return the effective OpacSuggestionRestrictCategories value.

```
=cut
```

```
sub effective_OpacSuggestionRestrictCategories {  
    my( $self) = @_;  
    return C4::Context->preference('OpacSuggestionRestrictCategories') if $self->OpacSuggestionRestrictCategories == -1;  
    return $self->OpacSuggestionRestrictCategories  
}
```



File:suggestion.pm

Location: /usr/share/koha/lib/Koha/Schema/Result

Code:

=head2 checkedby

data_type: 'integer'

is_foreign_key: 1

is_nullable: 1

=head2 checkeddate

data_type: 'date'

datetime_undef_if_invalid: 1

is_nullable: 0

=head2 approvedby

data_type: 'integer'

is_foreign_key: 1

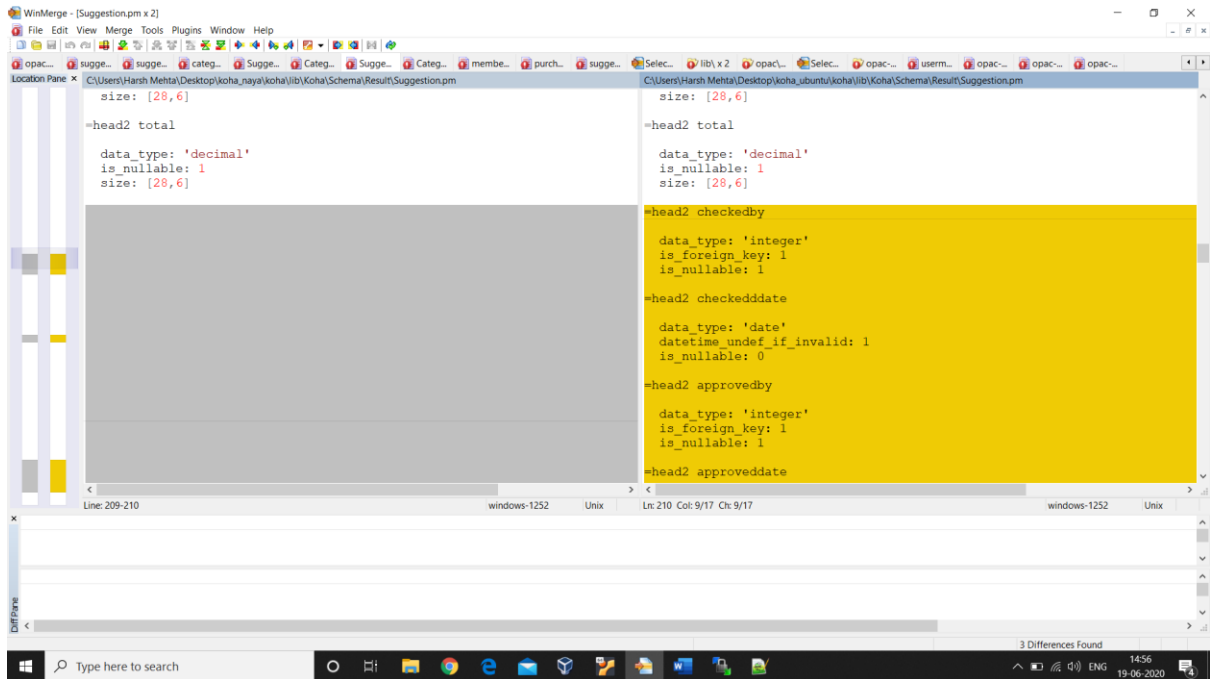
is_nullable: 1

=head2 approveddate

data_type: 'date'

datetime_undef_if_invalid: 1

is_nullable: 0



"checkedby",

```
{ data_type => "integer", is_foreign_key => 1, is_nullable => 1 },
```

"checkedddate",

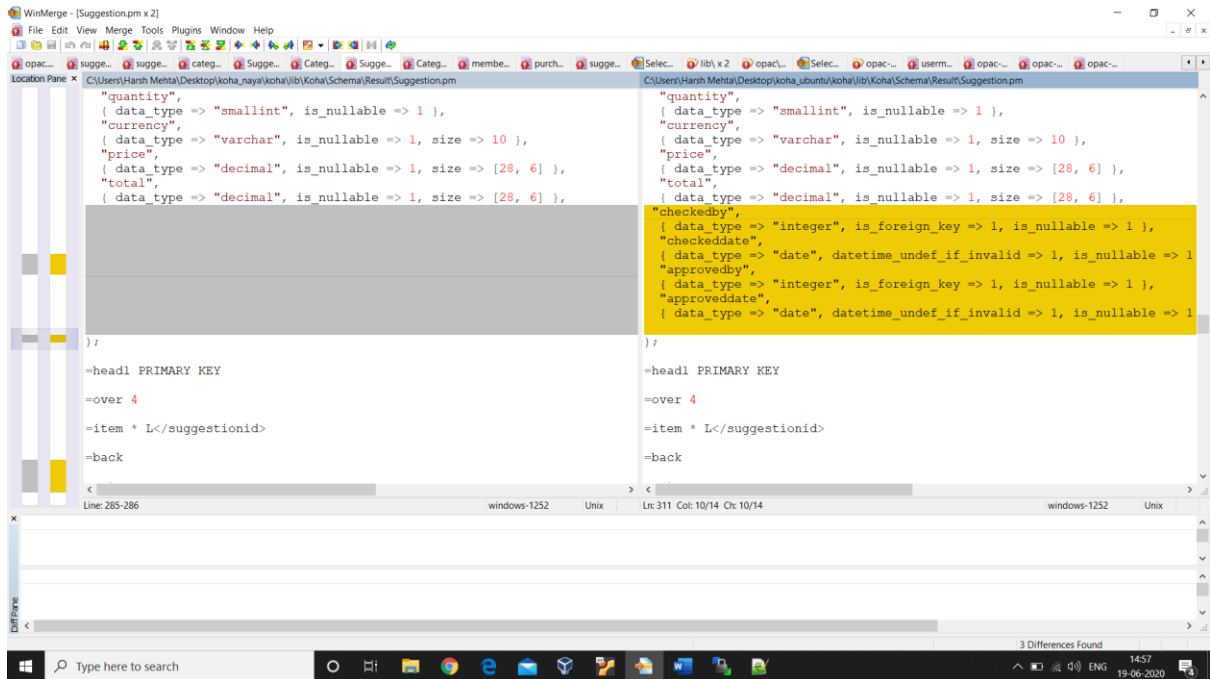
```
{ data_type => "date", datetime_undef_if_invalid => 1, is_nullable => 1 },
```

"approvedby",

```
{ data_type => "integer", is_foreign_key => 1, is_nullable => 1 },
```

"approveddate",

```
{ data_type => "date", datetime_undef_if_invalid => 1, is_nullable => 1 },
```

```

{
  is_deferrable => 1,
  join_type    => "LEFT",
  on_delete   => "SET NULL",
  on_update   => "CASCADE",
},
);

```

=head2 checkedby

Type: belongs_to

Related object: L<Koha::Schema::Result::Borrower>

=cut

__PACKAGE__->belongs_to(

"checkedby",

"Koha::Schema::Result::Borrower",

```
{ borrowernumber => "checkedby" },  
{  
  is_deferrable => 1,  
  join_type    => "LEFT",  
  on_delete    => "SET NULL",  
  on_update    => "CASCADE",  
},  
);
```

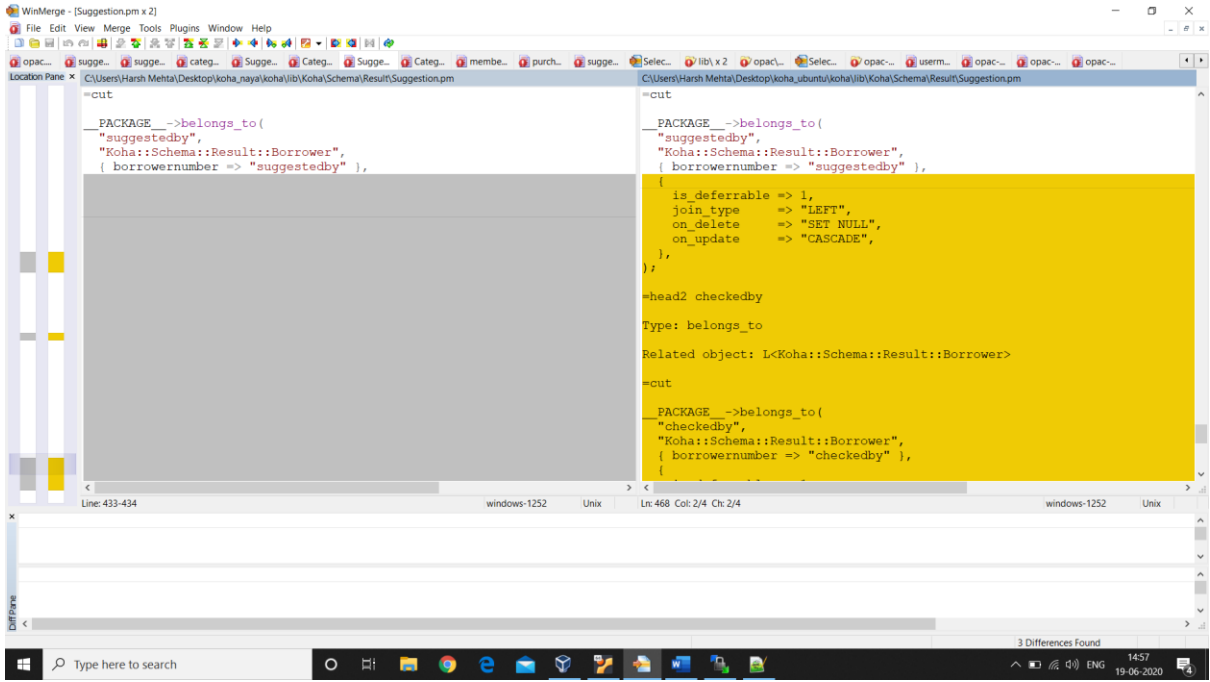
=head2 approvedby

Type: belongs_to

Related object: L<Koha::Schema::Result::Borrower>

=cut

```
__PACKAGE__->belongs_to(  
  "approvedby",  
  "Koha::Schema::Result::Borrower",  
  { borrowernumber => "approvedby" },
```



File:category.pm

Location: /usr/share/koha/lib/Koha/Schema/Result

Code:

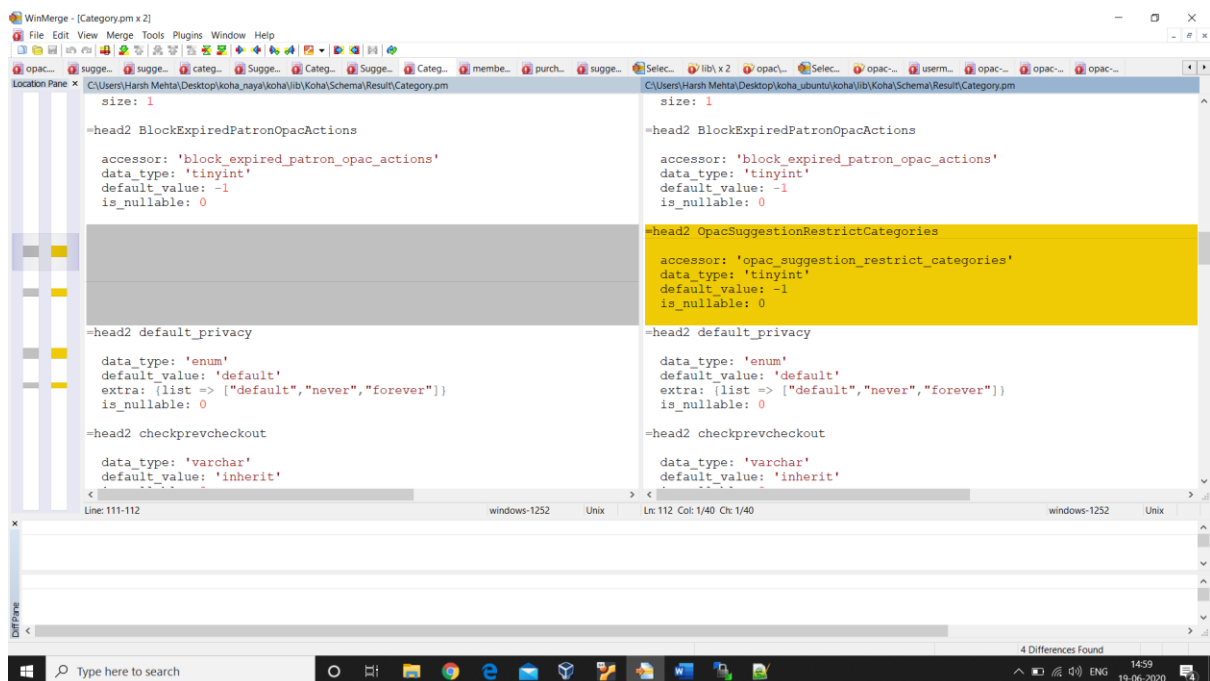
=head2 OpacSuggestionRestrictCategories

accessor: 'opac_suggestion_restrict_categories'

data_type: 'tinyint'

default_value: -1

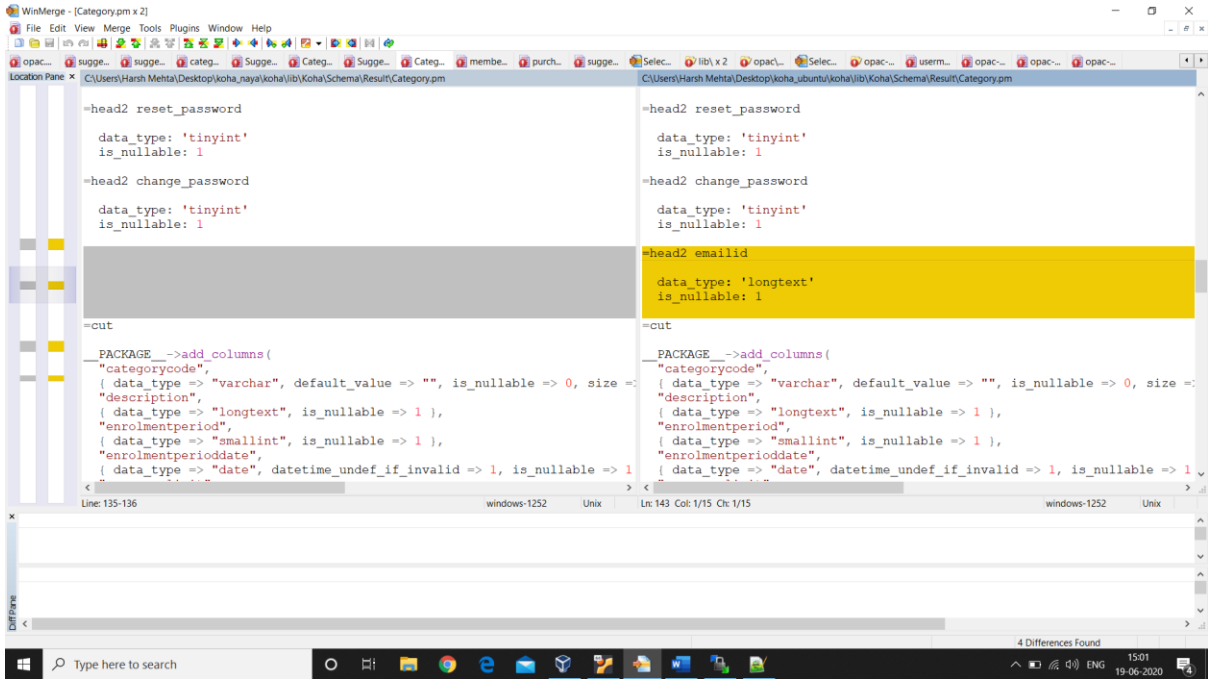
is_nullable: 0



=head2 emailid

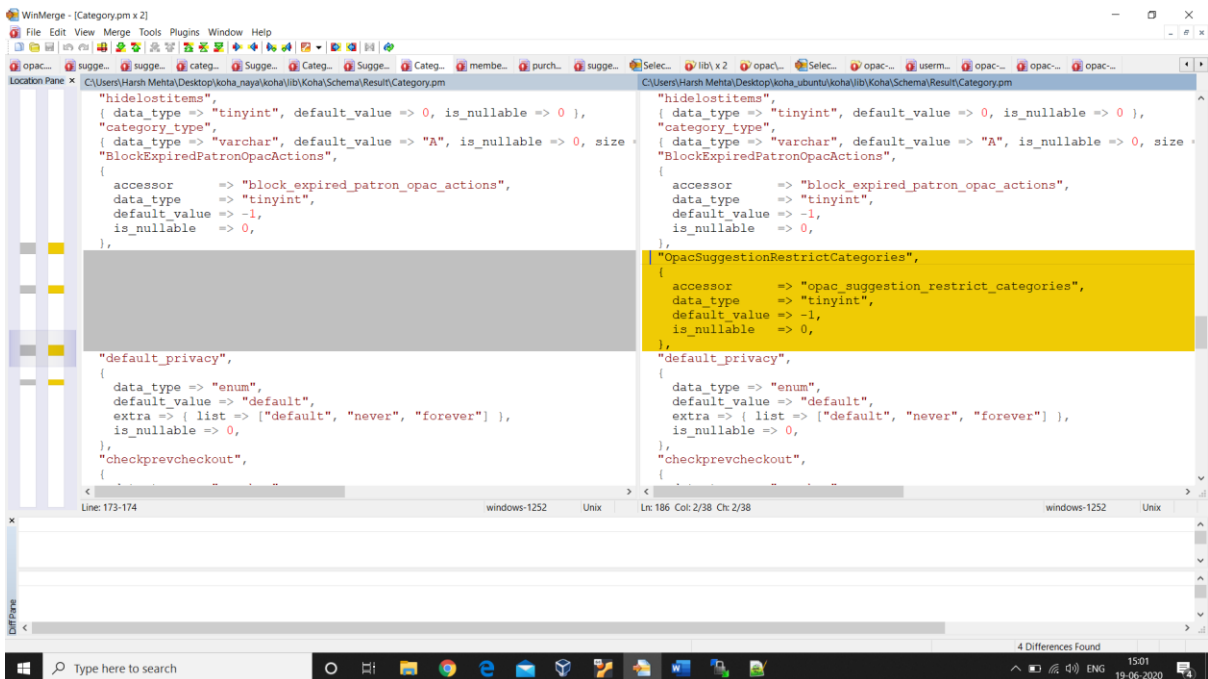
data_type: 'longtext'

is_nullable: 1



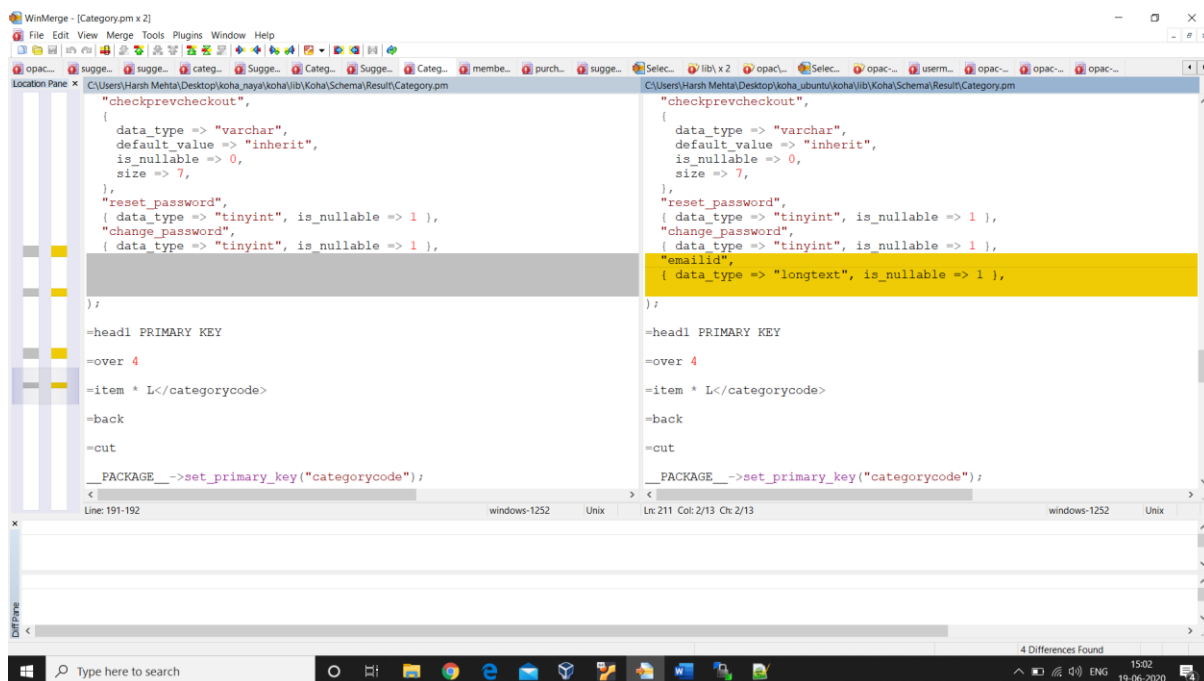
"OpacSuggestionRestrictCategories",

```
{
  accessor => "opac_suggestion_restrict_categories",
  data_type => "tinyint",
  default_value => -1,
  is_nullable => 0,
}
```



"emailid",

{ data_type => "longtext", is_nullable => 1 },

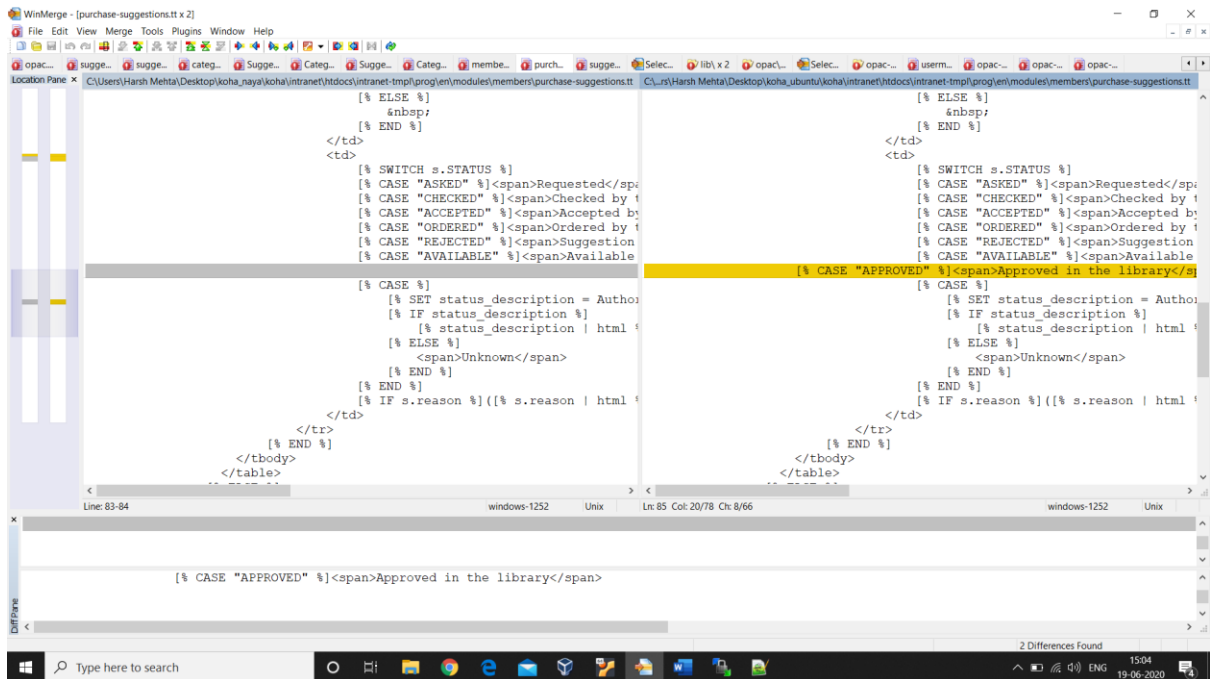


File: purchase-suggestions.tt

Location: /usr/share/koha/intranet/htdocs/intranet-tmpl/prog/en/modules/members

Code:

```
[% CASE "APPROVED" %]<span>Approved in the library</span>
```

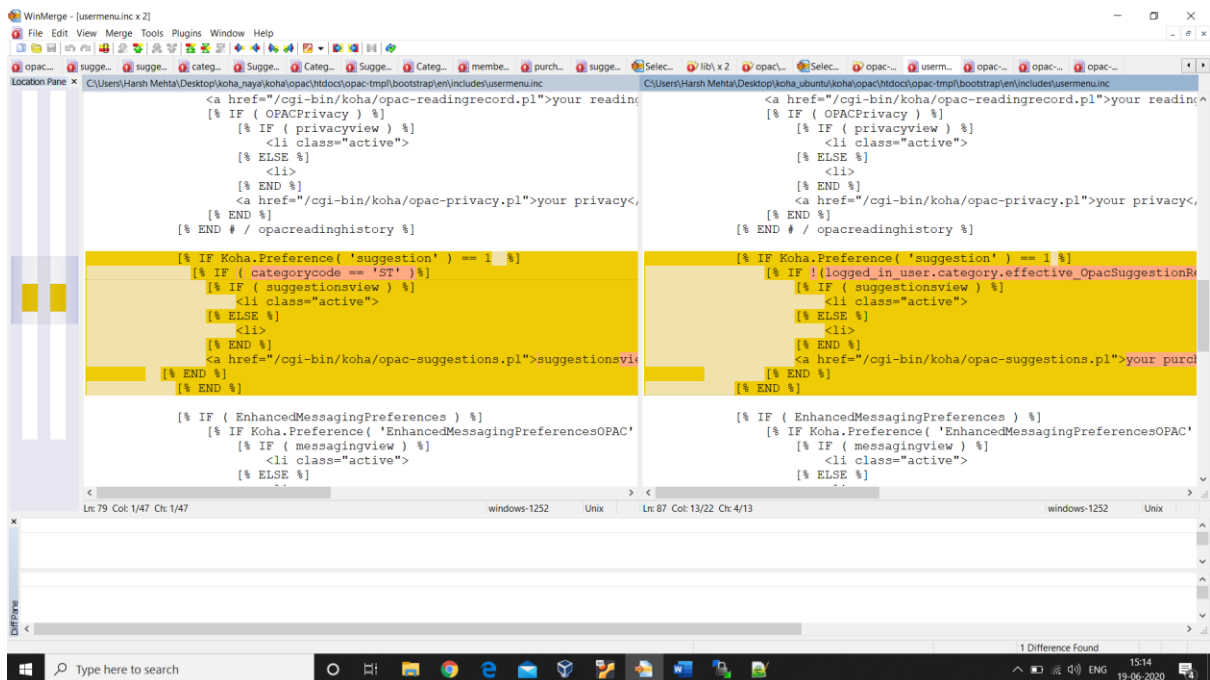


File:usmenu.inc

Loc: /usr/share/koha/opac/htdocs/opac-tmpl/bootstrap/en/includes

Code:

```
[% IF Koha.Preference( 'suggestion' ) == 1 %]
    [% IF
!(logged_in_user.category.effective_OpacSuggestionRestrictCategories) %]
        [% IF ( suggestionsview ) %]
            <li class="active">
[% ELSE %]
            <li>
[% END %]
            <a href="/cgi-bin/koha/opac-suggestions.pl">your purchase
suggestions</a></li>
        [% END %]
    [% END %]
```



File:opac-results-grouped.tt

Loc: /usr/share/koha/opac/htdocs/opac-tmpl/bootstrap/en/modules

Code:

```
[% IF Koha.Preference( 'suggestion' ) == 1 && ( Koha.Preference( 'AnonSuggestions' ) == 1 || loggedinusername || Koha.Preference( 'ILLModule' ) == 1 ) || ( Koha.Preference( 'OpacSuggestionRestrictCategories' ) == 0 && loggedinusername ) %]
```

```
<div class="suggestion">
```

```
    Not finding what you're looking for?
```

```
    <ul>
```

```
        [% If  
!(loggedinusername.category.effective_OpacSuggestionRestrictCategories) %]
```

```
            [% IF Koha.Preference( 'AnonSuggestions' ) == 1 %]
```

```
                <li>Make a <a href="/cgi-bin/koha/opac-suggestions.pl?op=add">purchase  
suggestion</a></li>
```

```
            [% ELSE %]
```

```
                [% IF ( loggedinusername ) %]
```

```
                    <li>Make a <a href="/cgi-bin/koha/opac-  
suggestions.pl?op=add">purchase suggestion</a></li>
```

```
                [% END %]
```

```
            [% END %]
```

```
            [% IF Koha.Preference( 'ILLModule' ) == 1 && loggedinusername %]
```

```
                <li>Make an <a href="/cgi-bin/koha/opac-  
illrequests.pl?op=create">Interlibrary loan request</a></li>
```

```
            [% END %]
```

```
        [% END %]
```

```
[% IF Koha.Preference( 'suggestion' ) == 1 && ( Koha.Preference( 'AnonSuggestions' ) == 1  
|| loggedinusername || Koha.Preference( 'ILLModule' ) == 1 ) || ( Koha.Preference(  
'OpacSuggestionRestrictCategories' ) == 0 && loggedinusername ) %]
```

```
<div class="suggestion">
```

```
    Not finding what you're looking for?
```

```
    <ul>
```

```
        [% If  
!(loggedinusername.category.effective_OpacSuggestionRestrictCategories) %]
```

```
            [% IF Koha.Preference( 'AnonSuggestions' ) == 1 %]
```

Make a purchase suggestion

[% ELSE %]

[% IF (loggedinusername) %]

Make a purchase suggestion

[% END %]

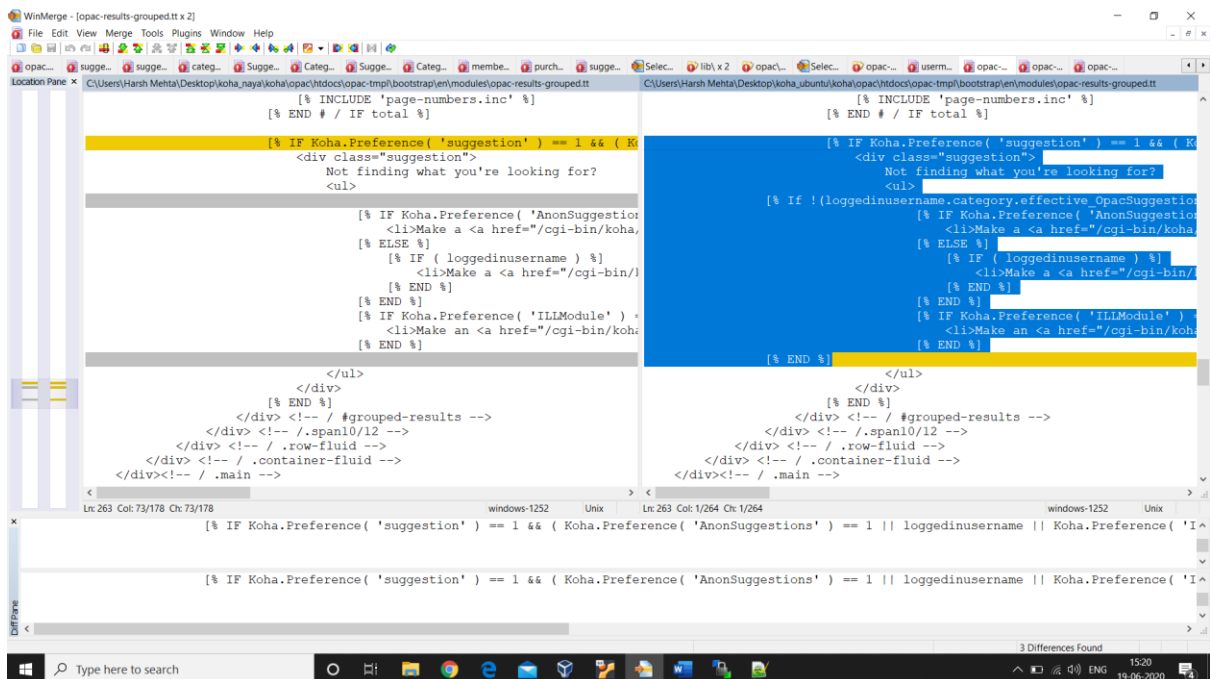
[% END %]

[% IF Koha.Preference('ILLModule') == 1 && loggedinusername %]

Make an Interlibrary loan request

[% END %]

[% END %]

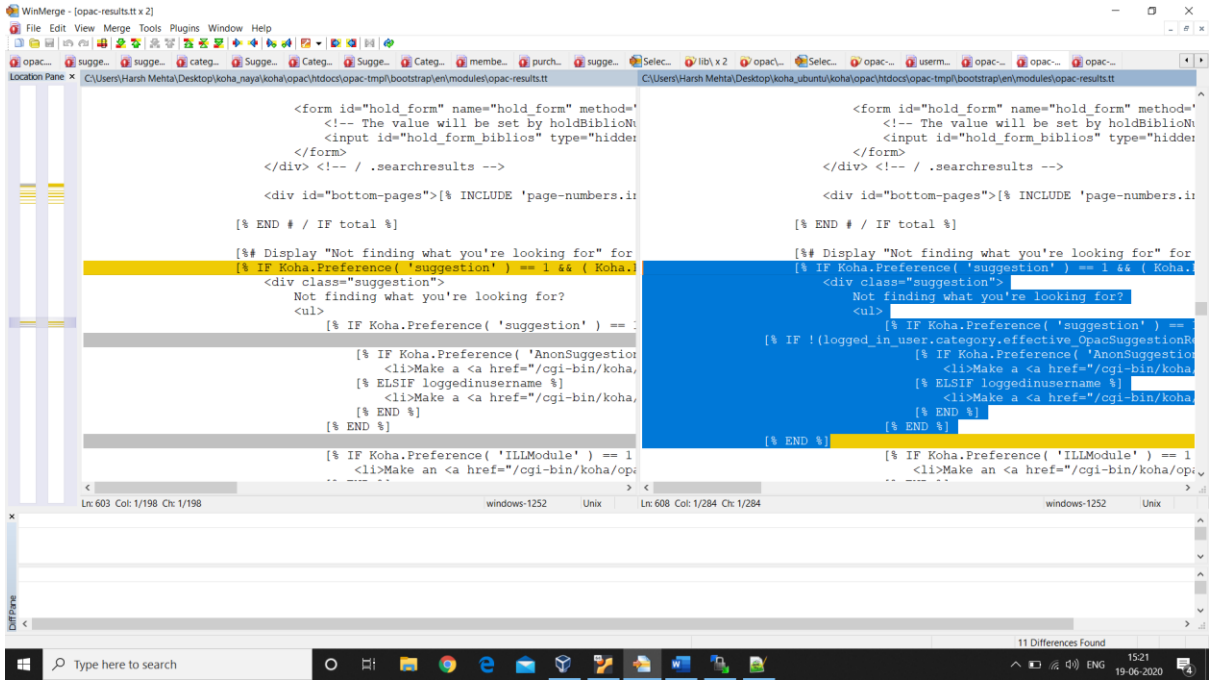


File:opac-results.tt

Loc: /usr/share/koha/opac/htdocs/opac-tmpl/bootstrap/en/modules

Code:

```
[% IF Koha.Preference( 'suggestion' ) == 1 && ( Koha.Preference( 'AnonSuggestions' )
== 1 || loggedinusername ) || ( Koha.Preference( 'ILLModule' ) == 1 && loggedinusername ) || (
Koha.Preference( 'OpacSuggestionRestrictCategories' ) == 0 && loggedinusername ) %]
    <div class="suggestion">
        Not finding what you're looking for?
    <ul>
        [% IF Koha.Preference( 'suggestion' ) == 1 %]
            [% IF
!(logged_in_user.category.effective_OpacSuggestionRestrictCategories) %]
                [% IF Koha.Preference( 'AnonSuggestions' ) == 1 %]
                    <li>Make a <a href="/cgi-bin/koha/opac-suggestions.pl?op=add">purchase
suggestion</a></li>
                [% ELSIF loggedinusername %]
                    <li>Make a <a href="/cgi-bin/koha/opac-suggestions.pl?op=add">purchase
suggestion</a></li>
                [% END %]
            [% END %]
        [% END %]
    </ul>
    [% END %]
```

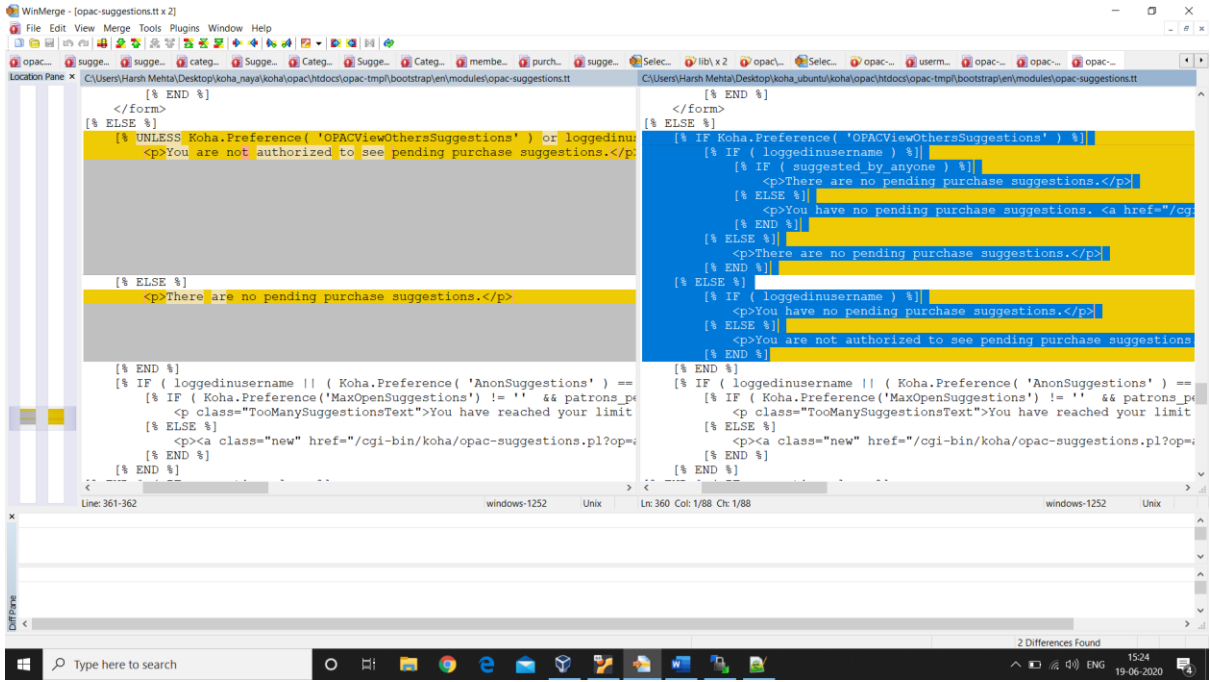


File:opac-suggestions.tt

Loc: /usr/share/koha/opac/htdocs/opac-tmpl/bootstrap/en/modules

Code:

```
[% IF Koha.Preference( 'OPACViewOthersSuggestions' ) %]
  [% IF ( loggedinusername ) %]
    [% IF ( suggested_by_anyone ) %]
      <p>There are no pending purchase suggestions.</p>
    [% ELSE %]
      <p>You have no pending purchase suggestions. <a href="/cgi-bin/koha/opac-suggestions.pl?suggested_by_anyone=1">View all suggestions</a></p>
    [% END %]
  [% ELSE %]
    <p>There are no pending purchase suggestions.</p>
  [% END %]
[% ELSE %]
  [% IF ( loggedinusername ) %]
    <p>You have no pending purchase suggestions.</p>
  [% ELSE %]
    <p>You are not authorized to see pending purchase suggestions.</p>
  [% END %]
```



Chapter 8

Database Code snippets:

The following tables have been altered:

- 1.) Systempreferences
- 2.) Categories
- 3.) Letter
- 4.) Suggestions

(Adding a new row 'OpacSuggestionRestrictCategories' in systempreferences table)

- 1.) Insert into systempreferences values ('OpacSuggestionRestrictCategories', '1', NULL, 'Patron Categories from submitting purchase suggestion', 'Yes/No');

(Adding a new column 'OpacSuggestionRestrictCategories' in categories table)

- 2.) Alter table categories add OpacSuggestionRestrictCategories tinyint(1) ;

(Adding a new column 'emailid' in categories table)

- 3.) Alter table categories add emailid longtext;

(Adding a new Status viz. 'Checked' in the letter table)

- 4.) insert into letter
select
module,'CHECKED',branchcode,name,is_html,title,content,message_transport_type,lang from letter where module='suggestions' and code='ACCEPTED';

5.) UPDATE `letter` SET `name` = 'Suggestion checked' ,title='Purchase suggestion checked'
WHERE `letter`.`module` = 'suggestions' AND `letter`.`code` = 'CHECKED';

(Adding a new Status viz. 'Approved' in the letter table)

- 6.) insert into letter
Select
module,'APPROVED',branchcode,name,is_html,title,content,message_transport_type, lang from letter where module='suggestions' and code='ACCEPTED';

```
7.) UPDATE `letter` SET `name` = 'Suggestion approved' ,title='Purchase  
suggestion approved'  
  
WHERE `letter`.`module` = 'suggestions' AND `letter`.`code` = 'APPROVED';
```

(Adding new Status columns in the suggestions table)

```
8.) alter table suggestions add (checkedby int(11),checkeddate Date,approvedby  
int(11),approveddate Date);
```

(For viewing the queued emails and their status)

```
9.) Select * from message_queue
```


Chapter 9

Final Outcomes:

Screenshot 1:

A drop-down menu named 'OpacSuggestionRestrictCategories' was added in global system preferences

OpacRenewalAllowed	<input type="text" value="Don't allow"/> patrons to renew their own books on the OPAC.
OpacRenewalBranch	Use <input type="text" value="the library the item was checked out from"/> as branchcode to store in the statistics table.
OPACSuggestionMandatoryFields	Fields that should be mandatory for patron purchase suggestions: <input type="text" value="Please select ..."/> Note: if none of the above options are selected, 'Title' field would be mandatory anyway, by default.
OpacSuggestionRestrictCategories	<input type="text" value="Restrict"/> Patron Categories from submitting purchase suggestion when AnonSuggestions preference is turned off.
OPACViewOthersSuggestions	<input type="text" value="Restrict"/> purchase suggestions from other patrons on the OPAC.
SearchMyLibraryFirst	<input type="text" value="Don't limit"/> patrons' searches to the library they are registered at.

Screenshot 2:

Another drop-down menu named 'Restrict purchase suggestions' was added in the category type page, using which a patron may be allowed/disallowed from making a purchase suggestion.

The screenshot displays a configuration page with the following settings:

- Password change in OPAC:** Follow system preference OpacPasswordChange (enabled) ▾
- Restrict purchase suggestions:** Follow system preference OpacSuggestionRestrictCategories ▾
Choose whether patrons of this category can make purchase suggestions if AnonSuggestions preference is set to "Default".
Options: Follow system preference OpacSuggestionRestrictCategories (highlighted), Restrict, Don't restrict
- Block expired patrons:** Follow system preference BlockExpiredPatronOpacActions ▾
Choose whether patrons of this category be blocked from public catalog actions such as renewing and placing holds when their cards have expired.
- Default privacy:** Default ▾
Controls how long a patrons checkout history is kept for new patrons of this category. "Never" anonymizes checkouts on return, and "Forever" keeps a patron's checkout history indefinitely. When set to "Default", the amount of history kept is controlled by the cronjob `batch_anonymise.pl` which should be set up by your system administrator.

Screenshot 3:

A new feature to add email-id of the library staff in order to send emails in each step of verifying the purchase suggestion.

Also, you need to keep the email textbox empty if you are among the restricted category.



The screenshot shows a form with the following fields:

- Hold fee:** A text input field containing the value "0.00".
- Category type:** A dropdown menu with the text "Select a category type" and a downward arrow. To its right is the word "Required" in red.
- Email:** A text input field. To its right is the text "Email-id of [Staff,Assistant Librarian,Central Librarian]".
- Library limitations:** A dropdown menu with two visible options: "All libraries" and "Central Library IIT Bombay".

Home » Administration » Patron categories » Modify category FAC

System preferences

- System preferences
- Basic parameters
 - Libraries
 - Library groups
 - Desks
 - Item types
 - Authorized values
- Patrons and circulation
 - Patron categories
 - Circulation and fines rules
 - Patron attribute types
 - Library transfer limits
 - Transport cost matrix
 - Item circulation alerts
 - Cities and towns
- Accounting
 - Debit types
 - Credit types
- Catalog
 - MARC bibliographic framework
 - Koha to MARC mapping
 - MARC bibliographic framework test
 - Authority types
 - Classification sources
 - Record matching rules
 - OAI sets configuration
 - Item search fields
 - Search engine configuration (Elasticsearch)
- Acquisition parameters
 - Currencies and exchange rates
 - Budgets
 - Funds
 - EDI accounts

Modify category FAC

Category code: FAC

Description: Required

Enrollment period:

Choose one

In months: months

Until date:

Age required: years

Upperage limit: years

Enrollment fee:

Overdue notice required:

Lost items in staff client:

Hold fee:

Category type: Required

Email: Email-id of Staff/Assistant Librarian/Central Librarian

Library limitations: Select All libraries if this category type must to be deployed all the time. Otherwise select libraries you want to associate with this value.

Password read in OSC:

Delete the extra text in the text box other than the email id

Enrollment period:

Choose one

In months: months

Until date:

Age required: years

Upperage limit: years

Enrollment fee:

Overdue notice required:

Lost items in staff client:

Hold fee:

Category type: Required

Email: Please enter a valid email address. Email-id of Staff/Assistant Librarian/Central Librarian

Library limitations: Select All libraries if this category type must to be deployed all the time. Otherwise select libraries you want to associate with this value.

Screenshot 4:

A new status namely 'APPROVED' which indicates the final step of the purchase suggestion verification

+ New purchase suggestion

Suggestions management

Accepted (3) Approved (4) Pending (4)

Check all | Uncheck all

Showing 1 to 4 of 4 Show 20 entries << First < Previous Next > Last > Search: ✕ Clear filter

<input type="checkbox"/>	Suggestion	Suggested by	Suggested on	Managed by	Managed on	Library	Fund	Status	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
<input type="checkbox"/>	jioj	meta (1010)	05/30/2020			Central Library IIT Bombay		Pending	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
<input type="checkbox"/>	ssnn	Mehta, Harsh (01)	06/03/2020			Central Library IIT Bombay		Pending	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
<input type="checkbox"/>	ss1	Mehta, Harsh (01)	06/03/2020			Central Library IIT Bombay		Pending	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
<input type="checkbox"/>	3ipdo3eode3	staff, staff (888)	06/06/2020			Central Library IIT Bombay		Pending	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

Showing 1 to 4 of 4 Next > Last >

Mark selected as: with this reason: OR: Delete selected

*Note: A dropdown menu is open over the 'Suggested by' field of the last row, showing options: -- Choose a status --, Pending, Accepted, Checked, **Approved**, Rejected.*

Screenshot 5:

A new tab 'APPROVED' where the books approved by the last person in the hierarchy are displayed.

[+ New purchase suggestion](#)

Suggestions management

[Accepted \(3\)](#)
[Approved \(4\)](#)
[Pending \(4\)](#)

Check all | Uncheck all
 Showing 1 to 4 of 4 Show entries << First < Previous Next > Last > Search: [✕ Clear filter](#)

<input type="checkbox"/>	Suggestion	Suggested by	Suggested on	Managed by	Managed on	Library	Fund	Status	
<input type="checkbox"/>	oracle	faculty (555)	06/06/2020	Mehta, Harsh	06/06/2020	Central Library IIT Bombay		Approved	Edit Delete
<input type="checkbox"/>	ms	staff, staff (888)	06/06/2020	Mehta, Harsh	06/06/2020	Central Library IIT Bombay		Approved	Edit Delete
<input type="checkbox"/>	Data Analytics	Enhanced, Faculty (222)	06/07/2020	librarian, central	06/07/2020	Central Library IIT Bombay		Approved	Edit Delete
<input type="checkbox"/>	Integration	librarian, assistant (777)	06/07/2020	librarian, central	06/07/2020	Central Library IIT Bombay		Approved	Edit Delete

Showing 1 to 4 of 4 << First < Previous Next > Last >

Mark selected as: with this reason: OR: Delete selected

Screenshot 6

Go to tools->Notices and slips

In module 'suggestions' and code 'new_suggestion' click on copy.

(All libraries)	Suggestions	NEW_SUGGESTION	New suggestion	Copy to Gemeindebibliothek Allschwil	Copy	Edit	Delete
-----------------	-------------	----------------	----------------	--------------------------------------	----------------------	----------------------	------------------------

Similarly,

In module 'suggestions' and code 'checked' click on copy.

(All libraries)	Suggestions	Checked	Vorgeschlagenes Medium bestellt	Copy to Gemeindebibliothek Allschwil	Copy	Edit	Delete
-----------------	-------------	---------	---------------------------------	--------------------------------------	----------------------	----------------------	------------------------

In module 'suggestions' and code 'approved' click on copy.

(All libraries)	Suggestions	Approved	Vorgeschlagenes Medium verfügbar	Copy to Gemeindebibliothek Allschwil	Copy	Edit	Delete
-----------------	-------------	----------	----------------------------------	--------------------------------------	----------------------	----------------------	------------------------

In module 'suggestions' and code 'accepted' click on copy.

(All libraries)	Suggestions	Accepted	Vorgeschlagenes Medium bestellt	Copy to Gemeindebibliothek Allschwil	Copy	Edit	Delete
-----------------	-------------	----------	---------------------------------	--------------------------------------	----------------------	----------------------	------------------------

Screenshot 7

Go to Systempreferences->Acquisitions->EmailPurchaseSuggestions

From the dropdown select 'EmailAddressFor Suggestions' and keep the textbox below the dropdown empty.

BasketConfirmations	When closing or reopening a basket, <input type="text" value="always ask for confirmation."/>
ClaimsBccCopy	<input type="text" value="Don't send"/> blind copy (BCC) to logged in user when sending serial or acquisitions claims notices.
CurrencyFormat	Display currencies using the following format <input type="text" value="360,000.00 (US)"/>
EmailPurchaseSuggestions EmailAddressForSuggestions	Choose email address that new purchase suggestions will be sent to: <input type="text" value="EmailAddressForSuggestions"/> If you choose EmailAddressForSuggestions you have to enter a valid email address: <input type="text"/>
gist	Tax rates are <input type="text" value="0"/> . Enter in numeric form, 0.12 for 12%. The first item in the list will be selected by default. F more than one value, separate with (pipe). Please note: The database will only accept values up to 4 decimals precision, furth values will be rounded.

Screenshot 8

Go to System Preferences->Opac>Features->Suggestion

And set it to 'allow' patrons for making purchase suggestions

reviewson	<input type="text" value="Allow"/> patrons to make comments on items on the OPAC.
ShowReviewer	Show <input type="text" value="full name"/> of commenter with comments in OPAC.
ShowReviewerPhoto	Show <input type="text" value=""/> reviewer's avatar beside comments in OPAC. The avatar will be searched on www.libravatar.org using the patron's e-mail address.
SocialNetworks	Show <input type="text" value="Please se..."/> social network links in opac detail pages
suggestion	<input type="text" value="Allow"/> patrons to make purchase suggestions on the OPAC.

▼ OpenURL

Preference	Value
OPACOpenURLItemTypes	List of item type codes (separated by spaces) for those you want to show the OpenURL link: <input type="text"/>
OPACShowOpenURL	<input type="text" value="Disable"/> display of OpenURL link in OPAC search results and detail page.

Chapter 10

Conclusions

Hence, outcomes were achieved as expected since all the requirements of the project were met and hence as shown in Screenshots 1 and 2 in the chapter 'Final Outcomes' drop-down menus were created in the system-preferences and category-type page through which our objective of restricting certain patron category from making purchase suggestion was met.

Also, in the traditional Koha, it was not possible to review a purchase suggestion in more than one step. Whereas in our customised Koha, when a purchase suggestion is made, as shown in screenshots 3 and 4 a three-step verification can be performed which sends an e-mail using postfix to the patron who previously processed the purchase suggestion thus, enabling the feature to involve multiple library persons in reviewing a purchase suggestion .

Also, as evident in screenshot 5 a new status named as 'APPROVED' was added in Koha so as to give a green flag to the purchase suggestion by the last person in the hierarchy, thereby, completing the three-step verification of the purchase suggestion.

CHAPTER 11

REFERENCES

- 1.) Koha Documentation: <https://koha-community.org/documentation/>
- 2.) Bugzilla: <https://bugs.koha-community.org/bugzilla3/>
- 3.) Koha-community github: <https://github.com/Koha-Community/Koha>