

Reports

TCPDF and CodeIgniter

Report are constructed using a combination of TCPDF and CodeIgniter. You can have information at www.tcpdf.org

The Report form handle the criteria's:

- Controller: Report.php main form and Report01.php Report02.php For each report
- Model: Model_report.php
- View: report/index.php

Each report have his own form in the Controller of CodeIgniter for a more simple maintenance. They are called directly in report/index.php using the html OBJECT data. This will allow the report to open inside CodeIgniter framework.

```
<!------- PRINT REPORTS ----->
<?php if($this->session->printREP01 == 'yes') : ?>
  <object data="<?php echo base_url("report01/REP01"); ?>" width="100%" height="1000px" type="application/pdf"> </object>
<?php endif; ?>
```

The Controller Report.php will control the Report View and create the drop-down list. If a report have been asked, it create some temporary variable session for the parameters. These variables will be invoked in the Controller of each program.

Example: Report01.php

It's in the controller Report01.php that the report will be composed with TCPDF and the Table class of CodeIgniter. Depending on the complexity of the report, it might be composed only with TCPDF. A call to the model report will be done to get the data and fill the information in the column of the report.

Add a new criteria in a report

Example of adding category as a new criteria. To add a field in a report you must:

1. Enable the criteria in JQuery of report/index.php.

```
//--> Enable the parameters depending on the report chosen
switch($("#report :selected").val()) {
  case 'REP01':
    $("#province").prop( 'disabled', false );
    $("#municipality").prop( 'disabled', false );
    $("#category").prop( 'disabled', false );
    $("#generate").prop( 'disabled', false );
    break;
```

2. Create a temporary session variable for the criteria chosen in the controller Report.php

```
$this->session->set_flashdata('printdoc', 'no');

if($this->input->post('report') == 'REP01') {
  $this->session->set_flashdata('printREP01', 'yes');
  $this->session->set_flashdata('printdoc', 'yes');
  $this->session->set_flashdata('province', $this->input->post('province'));
  $this->session->set_flashdata('municipality', $this->input->post('municipality'));
  $this->session->set_flashdata('category', $this->input->post('category'));
}
```

3. Add the criteria in model_report.php

```
//--> Criteria Category
$category = $this->session->category;
if ($category == 'all') {
    $category_from = 1;
    $category_to = 999;
}
else {
    $category_from = $category;
    $category_to = $category;
}
```

Add a field in a report

1. To add a new field in a report, make sure that this field is available in the SELECT of the model_report.php
2. Add the field in the heading and treatment of the record set of the report and adjust the format of each column considering this new field.

```
$this->table->set_heading('<th width="10%" height="28"><strong>'.$this->lang->line('Register Id').</strong></th>',
    '<th width="25%" height="28"><strong>'.$this->lang->line('Beekeeper Name').</strong></th>',
    '<th width="19%" height="28"><strong>'.$this->lang->line('Address').</strong></th>',
    '<th width="10%" height="28"><strong>'.$this->lang->line('Province').</strong></th>',
    '<th width="13%" height="28"><strong>'.$this->lang->line('Municipality').</strong></th>',
    '<th width="10%" height="28"><strong>'.$this->lang->line('Association').</strong></th>',
    '<th width="13%" height="28"><strong>'.$this->lang->line('Category').</strong></th>');

// Call to the database
$REP01 = $this->model_report->getREP01();

if ($REP01 == null) {
    // If not data found, we indicate in the report first line
    $this->table->add_row($this->lang->line('No data found'));
}
else {
    foreach ($REP01 as $rs):
        $cell1 = array('data' => $rs->beekeeper_register_id, 'width' => '10%');
        $cell2 = array('data' => $rs->beekeeper_name, 'width' => '25%');
        $cell3 = array('data' => $rs->address, 'width' => '19%');
        $cell4 = array('data' => $rs->province_name, 'width' => '10%');
        $cell5 = array('data' => $rs->municipality_name, 'width' => '13%');
        $cell6 = array('data' => $rs->association_name, 'width' => '10%');
        $cell7 = array('data' => $rs->category_name, 'width' => '13%');
        $this->table->add_row($cell1, $cell2, $cell3, $cell4, $cell5, $cell6, $cell7);
    endforeach;
}
```

Creation of new report in the system

The exercise is to create a report for Production on a step by step basic.

Step 1 - Report template needed

We need a list of all the production for an interval of dates. The report should be available with the criteria:

- Date From / Date To
- All Municipalities or one particular municipality

The information to print will be:

- Register ID
- Name of the beekeeper
- Product
- Total colony
- Total Production
- Production Date

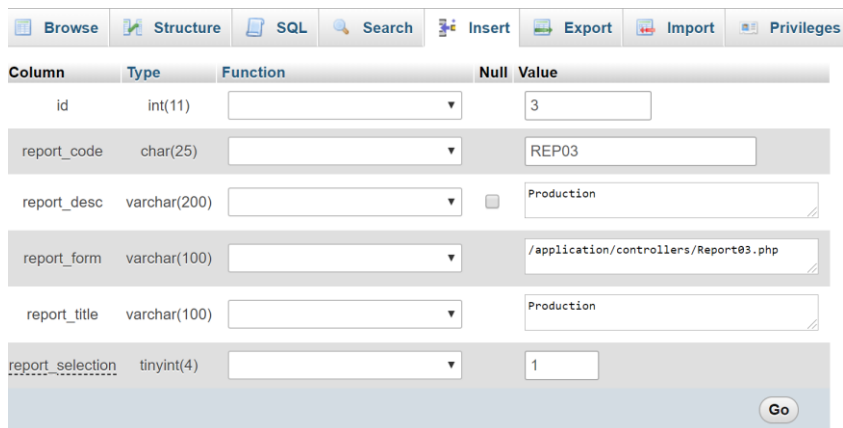
Step 2 – Create the new report in the report list

This is the drop-down list of the report in the Report form.



The screenshot shows a web form titled "Reports". Below the title is a label "Choose the report" followed by a dropdown menu. The dropdown menu is currently empty, showing only a downward arrow.

Goto phpMyAdmin – Database name – table report



The screenshot shows the phpMyAdmin interface for a table named "report". The table structure is as follows:

Column	Type	Function	Null	Value
id	int(11)			3
report_code	char(25)			REP03
report_desc	varchar(200)		<input type="checkbox"/>	Production
report_form	varchar(100)			/application/controllers/Report03.php
report_title	varchar(100)			Production
report_selection	tinyint(4)			1

Step 3 – Integrate this new report in the controller Report.php and view /report/index.php

The new report should be integrated in the process of the controller/Report.php

This is where we send as a session variable (temporary flashdata) the information to the view/report/index.php

```
else if($this->input->post('report') == 'REP03') {
    $this->session->set_flashdata('printREP03', 'yes');
    $this->session->set_flashdata('printdoc', 'yes');
    $this->session->set_flashdata('municipality', $this->input->post('municipality'));
    $this->session->set_flashdata('date_from', $this->input->post('date_from'));
    $this->session->set_flashdata('date_to', $this->input->post('date_to'));
}
else if($this->input->post('report') == 'REP04') {
```

By default, all the criteria of the report form are disabled. It's when the user choose the report that we will enable the appropriate criteria. You must **enable** the parameters Municipality and Date-from Date-to for Report 03 in the javascript part of /views/report/index.php

```

case 'REP03':
    $("#date_from").prop( 'disabled', false );
    $("#date_to").prop( 'disabled', false );
    $("#municipality").prop( 'disabled', false );
    $("#generate").prop( 'disabled', false );
    break;

```

And call the report after the criteria have been filled by the user.

```

<!------- PRINT REPORTS ----->
<?php if($this->session->printREP01 == 'yes') : ?>
    <object data="<?php echo base_url("report01/REP01"); ?>" width="100%" height="1000px" type="application/pdf"> </object>
<?php endif; ?>

<?php if($this->session->printREP02 == 'yes') : ?>
    <object data="<?php echo base_url("report02/REP02"); ?>" width="100%" height="1000px" type="application/pdf"> </object>
<?php endif; ?>

<?php if($this->session->printREP03 == 'yes') : ?>
    <object data="<?php echo base_url("report03/REP03"); ?>" width="100%" height="1000px" type="application/pdf"> </object>
<?php endif; ?>

```

Step 4 – Create the SQL query for report 03 in /models/model_report.php

```

public function getREP03()
{
    //--> Criteria Municipality
    $municipality = $this->session->municipality;
    if ($municipality == 'all') {
        $municipality_from = 0;
        $municipality_to = 999;
    }
    else {
        $municipality_from = $municipality;
        $municipality_to = $municipality;
    }

    $date_from = $this->session->date_from;
    $date_to = $this->session->date_to;
    if ($date_from == null) {$date_from = "'1900-01-01'";} else {$date_from = "'".$date_from."'";}
    if ($date_to == null) {$date_to = "'2500-01-01'";} else {$date_to = "'".$date_to."'";}

    $sql = "SELECT production.*,beekeeper_name,beekeeper_register_id,total_colony,
            product.name AS 'product_name'
    FROM production
        JOIN colony ON production.colony_id = colony.id
        JOIN apiary ON colony.apiary_id = apiary.id
        JOIN beekeeper ON apiary.beekeeper_id = beekeeper.id
        JOIN product ON production.product_id = product.id
    WHERE apiary.municipality_id BETWEEN $municipality_from AND $municipality_to
        AND production_date BETWEEN $date_from AND $date_to
    ORDER BY beekeeper_name";

    $query = $this->db->query($sql, array());

    if ($query->num_rows() > 0) {return $query->result();}

    return NULL;
}

```

Step 5 – Create the report in /application/controllers/Report03.php

We will copy from a report that already exists like Report01.php. The register ID and Beekeeper name is already there.

- Change everywhere Report01 for Report03
- Change everywhere REP01 for REP03
- Modify the size of the character because we have lots of information and we need small characters....
 - `$pdf->SetFont('dejavusans', '', 8);`
- Modify the title of the report: It will be Production taken from translation file. Make sure that the title is in the dictionary of the language unless the title won't appear. We add the year chosen by the user in the title.
 - `$title_report = $this->lang->line('Production');`
- Verify if Production exists in the translation english and mongolian
 - /application/language/english/english_lang.php
 - /application/language/english/mongolian_lang.php
- Change the heading for the appropriate title.

```
// Create a session variable to use the title in the header of tcpdf (library tcpdf / Pdf.php)
$this->session->set_flashdata('report_code', 'REP03');
```

- The result will be for the header:

```
$this->table->set_heading('<th width="15%" height="28"><strong>'. $this->lang->line('Register Id'). '</strong></th>',
'<th width="20%" height="28"><strong>'. $this->lang->line('Beekeeper Name'). '</strong></th>',
'<th width="10%" height="28"><strong>'. $this->lang->line('Product'). '</strong></th>',
'<th width="15%" height="28" align="right"><strong>'. $this->lang->line('Total Colonies'). '</strong></th>',
'<th width="20%" height="28" align="right"><strong>'. $this->lang->line('Total Production'). '</strong></th>',
'<th width="20%" height="28" align="right"><strong>'. $this->lang->line('Production Date'). '</strong></th>'
);
```

We want to align the header right when it's an amount. The percentage given of the total space taken on the report for each column must be evaluated while testing the printing.

The call to the database will bring the record set and the percentage for each column must be the same

```
// Call to the database
$REP03 = $this->model_report->getREP03();

$grand_total_colony = 0;
$grand_total_production = 0;

if ($REP03 == null) {
    // If not data found, we indicate in the report first line
    $this->table->add_row($this->lang->line('No data found'));
}
else {
    foreach ($REP03 as $rs):
        $grand_total_colony = $grand_total_colony + $rs->total_colony;
        $grand_total_production = $grand_total_production + $rs->total_production;

        $cell1 = array('data' => $rs->beekeeper_register_id, 'width' => '15%');
        $cell2 = array('data' => $rs->beekeeper_name, 'width' => '20%');
        $cell3 = array('data' => $rs->product_name, 'width' => '10%');
        $cell4 = array('data' => $rs->total_colony, 'width' => '15%', 'align' => 'right');
        $cell5 = array('data' => $rs->total_production, 'width' => '20%', 'align' => 'right');
        $cell6 = array('data' => $rs->production_date, 'width' => '20%', 'align' => 'right');
        $this->table->add_row($cell1, $cell2, $cell3, $cell4, $cell5, $cell6);
    endforeach;

    $blank_line = array('data' => '');
    $this->table->add_row($blank_line);

    //Print the total
    $cell1 = array('data' => '<strong>'. $this->lang->line('Total Production'). '</strong>', 'width' => '45%', 'bgcolor' => 'rgb(235,235,235)',
    'height' => '23', 'valign' => 'center');
    $cell2 = array('data' => $grand_total_colony, 'width' => '15%', 'align' => 'right', 'bgcolor' => 'rgb(235,235,235)', 'height' => '23');
    $cell3 = array('data' => number_format($grand_total_production, 2), 'width' => '20%', 'align' => 'right', 'bgcolor' => 'rgb(235,235,235)',
    'height' => '23');
    $cell4 = array('data' => '', 'width' => '20%', 'align' => 'left', 'bgcolor' => 'rgb(235,235,235)', 'height' => '23');
    $this->table->add_row($cell1, $cell2, $cell3, $cell4);
```

Then we call the OUTPUT to receive the PDF report in the report section of the system.

```
// Generate the table in html format using the table class of codeigniter
$html = $this->table->generate();

// Add a page and change the orientation/size
$pdf->AddPage('P', 'LETTER');

// Output the HTML content
$pdf->writeHTML($html, true, false, true, false, '');

// Reset pointer to the last page
$pdf->lastPage();

// Close and output PDF document
// (I - Inline, D - Download, F - File)
$pdf->Output('Report03.pdf', 'I');
```

Print a total for the report



DMMMSU-NARTDI Production

Register Id	Beekeeper Name	Product	Total Colonies	Total Production	Production Date
1456	Algoma	Soap	600	78.00	2020-04-14
1456	Algoma	Soap	600	66,666.00	2020-04-15
1456	Algoma	Honey	600	678.00	2020-04-23
1456	Algoma	Soap	600	600.00	2020-04-15
111	Alvéole	Bee wax	555	500.00	2020-04-14
5647	Dufferin Cie	Honey	80	78.00	2020-04-09
5647	Dufferin Cie	Honey	5000	500.00	2020-04-09
Total Production			8035	69,100.00	

In controller/report03.php

I created a variable to add the total of each column.

You must assign 0 to the variable before beginning to cumulate the amount in each variable.

```
$grand_total_colony = 0;
$grand_total_production = 0;

if ($REP03 == null) {
    // If not data found, we indicate in the report first line
    $this->table->add_row($this->lang->line('No data found'));
}
else {
    foreach ($REP03 as $rs):
        $grand_total_colony = $grand_total_colony + $rs->total_colony;
        $grand_total_production = $grand_total_production + $rs->total_production;
    endforeach;
}
```

After the variable is created, you can begin to add the content of each row. After all the lines have been created, you must print the total.