



# Summer Fellowship Report

On

**Employee Form Module**

Submitted by

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Under the guidance of

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# Chapter 1

## Introduction

### 1.1 Drupal

Drupal is an open source content management system. Some people would raise a question about what “Open source”, and “Content Management System” are. We will make an elaboration.

### 1.2 Open Source

The term “Open source” defines software whose source code is made publicly available. They are eligible for use and modification by users, developers subject to certain conditions.

Some key point of “Open Source”

- Do not need to buy Software.
- Large community (Users, developers, admin).
- Many open sources like Drupal are under the GNU Public License. Many open sources like Drupal are under the GNU Public License.

### 1.3 Content Management System

A CMS is a tool by which we can create, modification and manages the Digital Content by multiple users simultaneously.

Some features of CMS

- Gives simple Web-based portal so that users can publish content directly to the website.
- Control content author.

## 1.4 Drupal Custom Module

Modules work as plug-ins that extend Drupal core. Drupal has 40,000+ modules. In drupal core modules are those modules which is default install in drupal machine.

Custom Module is a drupal module which is create by web developer for small perpose use only like (Custom Form, Data Entry, Custom View etc.)

# Chapter 2

## Employee Form Drupal 7 Module

In any custom module of Drupal must have three basic files.

- `module_name.info`
- `module_name.install`
- `module_name.module`

### 2.1 `emp_form.info` Information of Module

It includes the -

- Name of the Module
- Description of the Module
- Version of the Drupal Core
- Package
- Dependencies

In this module one dependencies is require Which is `date_popup` for Entering date of Joining and Leaving.

### 2.2 `emp_form.install` Information of Database Table

It is use for creating database table by `hook_schema()`. In this module create one table which name is `emp_form_data`

Above database table consist of some column which store the data of Team Members

- Unique ID (Use for Developer)
- Employee ID
- Employee Name
- Employee Profile URL
- Employee Designation
- Employee Team Name
- Employee Joining Date
- Employee Leaving Date
- Employee Status
- Update Time (Use for Developer)

Primary Key is Unique ID and Employee ID

## 2.3 emp\_form.module Create Form and View Form

It is contains the major function of the module

- Add Details Form
- Edit Details Form
- Delete members data
- View form in Table form
- Upload CSV File (one dependencies parse-csv-php)

## 2.4 Upload CSV Validation

In this module require some header which are given below

- emp\_id
- emp\_name
- emp\_des
- team\_name
- join\_date

- status
- leave\_date
- profile\_url

Do not need to sequence of the above list.

If Employee ID same to another Employee it gives an error with message “Employee ID is same in ROW 1 and ROW 2”.

If any required field is blank it gives error with message.

## 2.5 Add Form Validation

In add form some filed is required which are given below

- Employee ID
- Employee Name
- Employee Designation
- Employee Status

## 2.6 Layout of CSV file

	A	B	C	D	E	F	G	H
1	emp_id	emp_name	emp_des	team_name	join_date	status	leave_date	profile_url
2	104	Rajesh Kushalkar	Senior Manager	OpenPLC, Scilab-Arduino		Inactive		
3	105	Kiran	Manager	FOSSEE		Inactive		
4	106	Usha Viswanathan	Manager	FOSSEE		Inactive		
5	107	Srikant Patnaik	Manager	FOSSEE Laptop, Arduino		Inactive		
6	108	Prof. Kannan M Moudgalya	Professor	FOSSEE		Active		<a href="http://www.che.iitb.ac.in/online/node/52">http://www.che.iitb.ac.in/online/node/52</a>
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## 2.7 parsecsv-for-php Library

ParseCsv is an easy-to-use PHP class that reads and writes CSV data properly. It fully conforms to the specifications outlined on the on the Wikipedia article. It has many advanced features which help make your life easier when dealing with CSV data.

You may not need a library at all: before using ParseCsv, please make sure if PHP’s own `str_getcsv()`, `fgetcsvs()` or `fputcsv()` meets your needs.

This library was originally created in early 2007 by jimie due to the lack of built-in and third-party support for handling CSV data in PHP.



## 2.8 Important Link of Module

- [emp\\_form/add](#) (for add details)
- [emp\\_form/view](#) (for view details in table form)
- [emp\\_form/upload](#) (for Uplaod CSV File)
- [emp\\_form/edit/emp\\_id](#) (for edit details)
- [emp\\_form/delete/emp\\_id](#) (for delete details)

# Chapter 3

## Fetch Database in About Us page

This is a php page in which we must to access database by drupal database function “db\_query”.

Before using above function we must add some important file which are given “db\_query” function.

- include\_once "includes/bootstrap.inc";
- drupal\_bootstrap(DRUPAL\_BOOTSTRAP\_DATABASE);

There are three category of showing members

- Active Members
- Team Members
- Inactive Members

In Active Members show only Professors, in Team Members show only active members and Inactive members show only Inactive and not Professor.

### 3.1 How to use db\_query()

If we want fetch Members who is Professor and active member. See below code.

```
db_query("SELECT emp_name emp_des FROM {emp_form_data} WHERE status = 'Active' AND emp_des = 'Professor'");
```

# Chapter 4

## Testing

In this chapter we will test the module by some testing

- Add Member (if this member no exist in database)
- Add Member (if this member exist in database)
- Edit Member
- Delete Member
- Upload CSV
- Upload CSV (if two member has same id)

### 4.1 Add Member Case 1

If this member no exist in database.

Open the Add Employee Form and fill the form. Click on Save button.

**Successfully Saved** as show in picture.

## Employee Form

**Employee ID \***  
  
The Employee's ID

**Employee Profile URL**  
  
The Employee's Profile URL

**Employee Name \***  
  
The Employee's name

**Employee Designation \***  
  
The Employee's Designation

**Team Name**  
  
The Team's Name

**Joining Date**  
**Date**  
  
E.g., 5 July 2018

**Leaving Date**  
**Date**  
  
E.g., 5 July 2018

**Employee Status \***  
 Active  
 Inactive  
Employee Status

## 4.2 Add Member Case 2

If this member exist in database.

Again Go to Add Employee Form and fill the form same data. Then it gives an error with message *Employee P12 is Already Exists as new*.

The screenshot shows a web application interface. At the top, there is a blue header with a logo and the text "Custom Module". Below the header, there are four navigation buttons: "Home", "Add Employee", "View Employee", and "Upload CSV". A red error message box is displayed, containing a red 'X' icon and the text "Employee P12 is Already Exists as new". Below the error message, there is a "Home" link. The main content area is divided into two sections. On the left, there is a search bar with a magnifying glass icon and a "Navigation" section. On the right, the "Employee Form" is displayed, starting with the "Employee ID \*" field, which is currently empty. Below the form, the text "The Employee's ID" is visible.

## 4.3 Edit Member

In this test we are going view portal where show all members and it will show edit link (*Only for admin*)

### List of Employee

Employee ID	Name	Designation	Team Name	Joining Date	Leaving Date	Status	Action
P12	new	new	new	2011-07-08	2017-07-18	Active	<input type="button" value="Edit"/> • <input type="button" value="Delete"/>

[Click here to add Employee](#) or [Upload CSV](#) or [Back to View](#)

We are going to edit Member name. Click on Edit Button, and show the edit form portal and form already fill its value now click on name and change to **old**

### Edit Employee Data

**Employee ID \***  
  
The Employee's ID

**Employee Profile URL**  
  
The Employee's Profile URL

**Employee Name \***  
  
The Employee's name

**Employee Designation \***  
  
The Employee's Designation

**Team Name**  
  
The Team's Name

**Joining Date**  
**Date**  
  
E.g., 5 July 2018

**Leaving Date**  
**Date**  
  
E.g., 5 July 2018

**Employee Status \***  
 Active  
 Inactive  
Employee Status

## 4.4 Delete Member

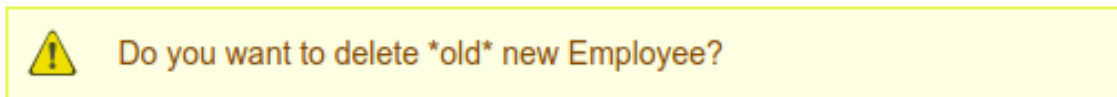
Above test we add and edit member data in this test we are going to delete this data. We must Go To View portal and click on delete button.

### List of Employee

Employee ID	Name	Designation	Team Name	Joining Date	Leaving Date	Status	Action
P12	old	new	new	2011-07-08	2017-07-18	Active	<input type="button" value="Edit"/> <span style="margin-left: 10px;">•</span> <input type="button" value="Delete"/>

[Click here to add Employee](#) or [Upload CSV](#) or [Back to View](#)

It show a confirmation message with Member name and Designation.



Home

---

## Delete Employee Data

## 4.5 Upload CSV Case 1

We have a CSV file which are given below

	A	B	C	D	E	F	G	H
1	emp_id	emp_name	emp_des	team_name	join_date	status	leave_date	profile_url
2	104	Rajesh Kushalkar	Senior Manager	OpenPLC, Scilab-Arduino		Inactive		
3	105	Kiran	Manager	FOSSEE		Inactive		
4	106	Usha Viswanathan	Manager	FOSSEE		Inactive		
5	107	Srikant Patnaik	Manager	FOSSEE Laptop, Arduino		Inactive		
6	108	Prof. Kannan M Moudgalya	Professor	FOSSEE		Active		<a href="http://www.che.iitb.ac.in/online/node/52">http://www.che.iitb.ac.in/online/node/52</a>
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9	111	Prof. Shivasubramanian Gopalakrishnan	Professor	FOSSEE		Active		<a href="http://www.me.iitb.ac.in/faculty/27/profile/">http://www.me.iitb.ac.in/faculty/27/profile/</a>

After the upload CSV file Go To View page to show all members.

## List of Employee

Employee ID	Name	Designation	Team Name	Joining Date	Leaving Date	Status	Action
104	Rajesh Kushalkar	Senior Manager	OpenPLC, Scilab-Arduino			Inactive	Edit • Delete
105	Kiran	Manager	FOSSEE			Inactive	Edit • Delete
106	Usha Viswanathan	Manager	FOSSEE			Inactive	Edit • Delete
107	Srikant Patnaik	Manager	FOSSEE Laptop, Arduino			Inactive	Edit • Delete
108	Prof. Kannan M Moudgalya	Professor	FOSSEE			Active	Edit • Delete
109	Prof. Prabhu Ramachandran	Professor	FOSSEE			Active	Edit • Delete
110	Prof. Madhu N. Belur	Professor	FOSSEE			Active	Edit • Delete
111	Prof. Shivasubramanian Gopalakrishnan	Professor	FOSSEE			Active	Edit • Delete

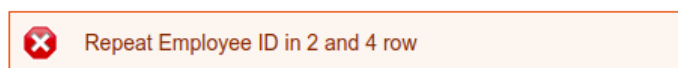
[Click here to add Employee](#) or [Upload CSV](#) or [Back to View](#)

## 4.6 Upload CSV Case 2

If two member has same id. In this test Emp ID **105** in two rows.

emp_id	emp_name	emp_des	team_name	join_date	status	leave_date	profile_url
104	Rajesh Kushalkar	Senior Manager	OpenPLC, Scilab-Arduino		Inactive		
105	Kiran	Manager	FOSSEE		Inactive		
106	Usha Viswanathan	Manager	FOSSEE		Inactive		
105	Srikant Patnaik	Manager	FOSSEE Laptop, Arduino		Inactive		
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It give a error with message (*Repeat Id in 2 and 4 row*)



[Home](#)



### Upload CSV File

No file chosen

## 4.7 About Page

It divide into three types





- Active Member
- Team Member
- Past Team Member

In Active member Show only Professors Active and his profile.

In Team member Show only Active members.

In Past Team member Show only Inactive member.

### Active Members

Prof. Kannan M Moudgalya		Prof. Prabhu Ramachandran	
Prof. Madhu N. Belur		Prof. Shivasubramanian Gopalakrishnan	

### Team Members

Kiran	[Manager]	Usha Viswanathan	[Manager]
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### Past Team Members

Rajesh Kushalkar	[Senior Manager]	Srikant Patnaik	[Manager]
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# Chapter 5

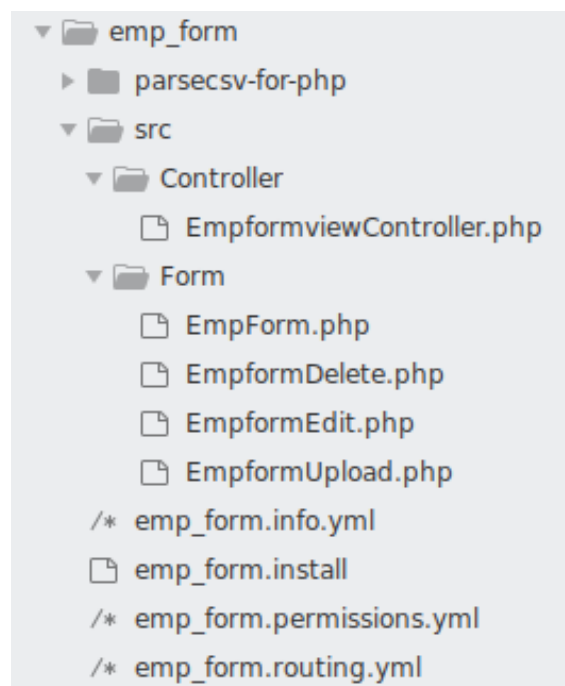
## Drupal 8 Custom Module

Migrating Drupal 7 modules to Drupal 8

### 5.1 Basic structure

In Drupal 8 Custom Module are store in modules folder. Its file Structure are given below. Drupal 8 custom module has more file then Drupal 7.

- emp\_form.info.yml
- emp\_form.install
- emp\_form.permissions.yml
- emp\_form.routing.yml
- Controller Files
- Form files



## Reference

- [Drupal 7 Custom Module](#)
- [Drupal 8 Custom Module](#)
- [ParseCSV PHP Library](#)

## GitHub Link

[Employee Form Module](#)