

Government Engineering College, Thrissur
CS333– Application Software Development Lab
Documentation -
Mini-Project
Project Portfolio Management – Open PPM

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Project Portfolio Management – Open PPM

Setup

Database

Project development will change the database as we proceed, it is not one time process. We improve as we built new features into the application. We can setup a database from Linux terminal. First of all login to your MySQL using following command:

```
mysql -u <username> -p
```

Enter the password. Now we can import the SQL queries and create database – tables, triggers, functions, procedures etc... Use the following code to import database -

```
Source <path>/db.sql
```

Importing database will take some time. It may take up to 5 min.

Project

This project runs on PHP 7.4.12 and MySQL 8.0.22.

Extract zip file named **ppm** and copy it to the location **/var/www/html/ppm**. Now we can access the website by typing **localhost/ppm** in browser. (Recommended Mozilla Firefox). We need to edit some of the configuration file in-order to connect the application to the database previously created.

1. Open **connection.php** file from **config** folder
2. If the MySQL is installed on the same system keep the server name as localhost. No need to change
3. Enter user name, password, and database name(open_ppm)
4. Open the web application in browser. It will be redirected to login page automatically.

If database is connected without errors we will be able to login to the dashboard with following user name and password.

```
Username: dkowsikpai  
Password: a
```

Login page screenshot is provided in the next page

Open PPM

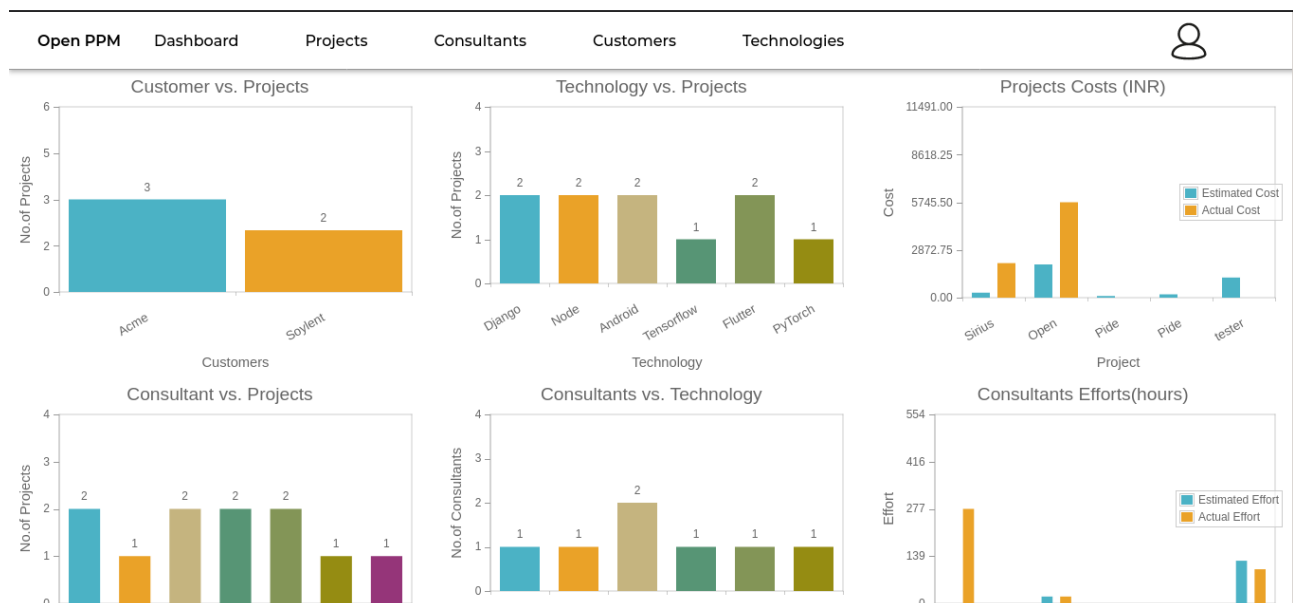
Username

Password

Enter your password secretly



After login we will be redirected to dashboard. Dashboard looks like -



We can see navigation bar on the top. Dashboard gives insight into how projects, resources and cost managed. *Note: If some graph is not showing it means that, minimum amount of data for analytic is not available. For example if consultant effort is not showing any plots, we can add required information in Project → Transaction.*

Introduction to Open-PPM










Dashboard

Dashboard provides a sleek insight into project portfolio management. Open PPM provides different analytic plots from the information provided. Some of the plots include

- Projects vs. Customers
- Projects vs. Technology
- Projects Costs
- Consultants vs. Projects
- Consultants vs. Technology
- Consultants Efforts

Projects

We can Add, Edit, Delete projects. In addition to the basic operation we can manage technologies used in the various projects. We can also allocate resources based on their designation. We will be able to monitor their transactions to the project. We can monitor actual and estimated quantities. Excel reports, PDF report generations are some of the additional features provided in Open-PPM.

Open PPM	Dashboard	Projects	Consultants	Customers	Technologies	
Open PPM / Projects						
Projects  Add  Edit  Delete  Technology  Resources  Transaction  Excel  PDF						
Title	Status	Estimated Effort	Estimated Cost			
Open PPM	Not Started yet	0.00	2000.00			
Pide Piper	Development	0.00	100.00			
Pide Piper	Development	0.00	200.00			
Sirius	Not Started yet	0.00	300.00			
tester	Alpha	234213.00	1212.00			

Add

Projects can be added by clicking Add button. As we do any form filling we can provide information in the user-friendly form. Click on the blue submit button to store it in the database. If addition was successfully committed to the database we will get a pop up notification – “Successfully Added”.

Add Projects

Title

Description

Customer:

Project Manager:

Status:

Estimated Effort

Estimated Cost

Title	Status
Open PPM	Not Started yet
Pide Piper	Development
Pide Piper	Development
Sirius	Not Started yet
tester	Alpha

Customer name, Project Manager names can be selected from the drop down. If you want to add or remove an entry, we can manage it from Customers and Consultants Menu.

Edit

We can edit existing projects through edit option. After pressing submit we will get success notification if no errors were committed.

Edit Project

Pide Piper

Compression Tool

Customer:

Project Manager:

Status:

0.00

200.00

Title	Status
Open PPM	Not Started yet
Pide Piper	Development
Pide Piper	Development
Sirius	Not Started yet
tester	Alpha

Delete

Delete existing projects.

Technology

We can manage the technologies used in specific project. Only prerequisite to use a new project in a project is that we have to first include that specific project Technologies table. Versions related to each project is treated as different technology at project level. Which helps to team to maintain project when it comes to maintenance and security.

The screenshot shows the Open PPM interface with a modal window titled "Technology" open. The modal has a close button (X) in the top right corner. Inside the modal, there are "Add" (green plus icon) and "Delete" (red minus icon) buttons. Below these buttons is a table with two columns: "Technology" and "Version". The table contains the following data:

Technology	Version
Android	8
Django	3.0.0
Flutter	10.0.0
Node JS	12.0.0
PyTorch	2

At the bottom of the modal, there is a pagination bar showing "15" items per page, "Page 1 of 1", and "Displaying 1 to 5 of 5 items".

In the background, the "Projects" table is visible with the following data:

Title	Status
Open PPM	Not Started yet
Pide Piper	Development
Pide Piper	Development
Sirius	Not Started yet
tester	Alpha

Resources

Consultants who are working on projects are managed using Resource menu. For one consultant to make his transaction he must be included as part of the project. In-order to add/remove a resource without affecting effort and cost computation we can use this feature in Open PPM.

When we add a resource we have to specify the estimated effort that particular consultant is expected to produce. Also for the cost computation we have to provide hourly rate, overtime rate and whether overtime is allowed or not. On adding a new resource, it will be reflected in the plots generated in the dashboard.

We can also edit values dynamically any time using Edit option. Removal of a resource don't affects the transaction the have committed to the project.

The screenshot displays the Open PPM application interface. The top navigation bar includes 'Open PPM', 'Dashboard', 'Projects', 'Consultants', and 'Custom'. The left sidebar shows 'Open PPM / Projects'. The main content area is divided into two panels: 'Projects' and 'Resources'.

Projects Panel: Features a table with columns 'Title' and 'Status'. The table lists several projects, including 'Open PPM' (Not Started yet), 'Pide Piper' (Development), 'Pide Piper' (Development), 'Sirius' (Not Started yet), and 'tester' (Alpha). Above the table are buttons for 'Add', 'Edit', 'Delete', 'Technology', and 'R'.

Resources Panel: Features a table with columns 'Name', 'Email', 'Designation', and 'Hourly Rate'. The table lists five resources: Nick R. Bocker (Data Analyst, 8.00), Paige Turner (CFO, 9.00), Paul Molve (Design Manager, 20.00), Petey Cruiser (CEO, 8.00), and Walter Melon (Android Developer, 10.00). Above the table are buttons for 'Add', 'Edit', and 'Delete'. Below the table is a pagination bar showing 'Page 1 of 1' and 'Displaying 1 to 5 of 5 items'.

Transactions

Transaction can be treated as how much one person have invested this time and effort in completion of effort. For a company it is a vital information to know how much a resource is productive. We can either add or delete transaction. All transactions are time stamped. When we add an new transaction to the list we have to specify how much effort(in hours) have he spent for the project and the relative percentage completed.

The screenshot displays the Open PPM application interface with the 'Transactions' module open. The top navigation bar and left sidebar are the same as in the previous screenshot.

Projects Panel: The same table as in the previous screenshot, showing projects and their statuses.

Transactions Panel: Features a table with columns 'Name', 'Email', 'Designation', and 'Entry Date'. The table lists 14 transactions, including entries for Anna Mull, Anna Sthesia, Gail Forcewind, Nick R. Bocker, Paige Turner, Paul Molve, and Petey Cruiser. Above the table are buttons for 'Add' and 'Delete'. Below the table is a pagination bar showing 'Page 1 of 1' and 'Displaying 1 to 14 of 14 items'.

Excel – Export

We can generate Microsoft Excel Report of the project table from this console. *This feature is under development and some of the details aren't added currently.*

Project ID	Title	Description	Customer Name	Project Manager	Status	Estimated Effort	Estimated Cost	Percentage Completed	Start Date	End Date
2	Open PPM		Soylent Corp	Paul Molve	Not Started yet	0	2000		0 2020-09-12 00:00:00	2021-04-16 00:00:00
3	Pide Piper		Acme Corporation	Petey Cruiser	Development	0	100		0 2020-11-21 00:00:00	2020-11-21 00:00:00
4	Pide Piper		Acme Corporation	Petey Cruiser	Development	0	200		0 2020-11-21 00:00:00	2020-11-21 00:00:00
1	Sirius		Acme Corporation	Anna Mull	Not Started yet	0	300		0 2020-09-12 00:00:00	2021-02-27 00:00:00
6	tester		Soylent Corp	Nick R. Bocker	Alpha	234213	1212	100	2020-11-02 00:00:00	2020-11-06 00:00:00

PDF – Report

We can generate PDF report of each project. *This feature is also under development. For the demonstration purpose some of the details are provided.*

Open-PPM Project Report: Sirius

Project Description: **Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**

Percentage Completed: **0.00%**

Status: **Not Started yet**

Estimated Cost: **300.00 INR**

Estimated Effort: **0.00 Hours**

Start Date: **2020-09-12 00:00:00**

Finish Date: **2021-02-27 00:00:00**

Consultants

In Project Management we usually refer employees as consultants. We can manage their details such as contact details, role in company, grade, designation all can be managed through this portal.

Consultants

 Add
  Edit
  Delete
  Designation
  Technology






Name	Phone	Email	Designation
Alex Fleix	9646946767	barb@gmail.com	Web Developer
Anna Mull	7901584026	annamull@gmail.com	Project Manager
Anna Sthesia	10105525611	anna@gmail.com	Accounts Manager
Gail Forcewind	1594941628	gail@gmail.com	Marketing Manager
Nick R. Bocker	5779877107	nick@gmail.com	Data Analyst
Paige Turner	0148042499	paige@gmail.com	CFO
Paul Molive	6011377914	paul@gmail.com	Design Manager
Petey Cruiser	410763981007	peter@gmail.com	CEO
Walter Melon	1171089059	walter@gmail.com	Android Developer

Each consultant may be adept in a particular technology. We can manage the those information in Open-PPM with ease.

Open PPM
Dashboard
Projects
Consultants
Custom



Open PPM / Consultants

Consultants

 Add
 Edit
 Delete
 Designation
 Technology

Name	Phone
Alex Fleix	9646946767
Anna Mull	7901584026
Anna Sthesia	10105525611
Gail Forcewind	1594941628
Nick R. Bocker	5779877107
Paige Turner	0148042499
Paul Molive	6011377914
Petey Cruiser	410763981007
Walter Melon	1171089059

Technology

 Add
 Delete

Technology	Version
PyTorch	2
Tensorflow	2

15
Page 1 of 1
Displaying 1 to 2 of 2 items

Customers

Most important and backbone of a company is their customer. Managing customer information - contact information and their needs can be done in Open PPM with ease.

Open PPM / Customers

Customers

[Add](#)
[Edit](#)
[Delete](#)
[Contacts](#)

Name	Phone	Email	Fax
Acme Corporation	1318100317	acme@gmail.com	5779877107
Soylent Corp	0914013308	soylent@gmail.com	0914013308

Open PPM / Customers

Customers

[Add](#)
[Edit](#)
[Delete](#)
[Contacts](#)

Name	Phone
Acme Corporation	1318100317
Soylent Corp	0914013308

Contacts

[Add](#)
[Edit](#)
[Delete](#)

Contact Person	Phone Number	Mobile	Email
Buck Kinnear	8653690567	8653690567	buck@gmail.com
Greta Life	7759478389	7759478389	greta@gmail.com

15 [Page 1](#) of 1 [Displaying 1 to 2 of 2 items](#)

Technology

As we said earlier, we can manage different versions of different technologies in our application.

The screenshot shows the 'Technologies' management page in the Open PPM application. The top navigation bar includes links for 'Open PPM', 'Dashboard', 'Projects', 'Consultants', 'Customers', and 'Technologies', along with a user profile icon. The breadcrumb trail indicates the current location is 'Open PPM / Technologies'. The main content area is titled 'Technologies' and features three action buttons: 'Add' (green plus icon), 'Edit' (blue pencil icon), and 'Delete' (red minus icon). Below these buttons is a table with two columns: 'Technology' and 'Version'. The table contains the following data:

Technology	Version
Android	8
Django	3.0.0
Flutter	10.0.0
Node JS	12.0.0
PyTorch	2
Tensorflow	2