Assignment

For

ITC Web Nominee

Reimbursement Application

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Submitted by

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Approach

I have created a simple application, where the team manager can enter the bill details. Then the bill can be approved by UG nominee, Fac Ad, SAC office , Dean and finally by account office. Any person can view the status of the bills. I had not made too complex applications due to less time and resources. I will include the future modification for the application below section.

As of now I have created a single table with entries for UG nominee, FAC ad, SAC office, dean and account office and their values set as null. I checked whether the value is null or not, if it is null, that means the particular section does not approve. For approving a bill entry, I added the current timestamp and checked if the previous person approved or not. If not, the person can not be approved.

I had used a simple HTML view for the application, which is mobile friendly, and developed using bootstrap technology.

Future plans

I have planned to make with Django, a MVC framework developed using python. I will plan to divide the single tables into users table(for storing different users with different levels), project details table(to store the basic information about the projects), bill details table(for storing the bill details with file uploads) and seperate table for each entity(facad, sac office, dean etc) for adding more options like remarks, file uploads at each level, better data management and fast querying. I did not include proper validation to the forms. It should be implemented in the final version. I also planned to add user wise gated features so that different users can do and feel different options. Also I planned to add an effective notification system through email to the creator of the entry regarding the approval and remarks.

Tools used

1. **Programming language** : I used PHP 7 as a programming language. PHP 7 is a more powerful web programming language used by millions of websites in the world. PHP7 is comparatively more powerful than python and php 5.7.

2. **Framework Used:** I had used Laravel framework for doing the web application. Laravel is a free open source web framework known for its ease for developing web applications. It is one of the most popular and powered on more than 1M active web applications including startups.co.

3. **Database:** I used MySQL for storing databases.

4. **Server**: Apache web server, which is a common web server for PHP.

5. **Front end**: Bootstrap, which is a responsive html page making techniques initially developed by twitter.

6. **Text Editor**: Sublime text, a widely used cross platform text editor.

7. **Browser:** Google chrome

8. OS: Ubuntu.

Diagrams

#	Name	Type	Collation	Attributes	Null	Default	Extra
1	id 🔑	int(11)			No	None	AUTO_INCREMENT
2	name	varchar(200)	latin1_swedish_ci		No	None	
3	team_manager	varchar(200)	latin1_swedish_ci		No	None	
4	bill_number	varchar(200)	latin1_swedish_ci		No	None	
5	bill_amount	varchar(50)	latin1_swedish_ci		No	None	
6	bill_date	date			No	None	
7	ug_nominee	datetime			Yes	NULL	
8	facad	datetime			Yes	NULL	
9	sac_office	datetime			Yes	NULL	
10	dean	datetime			Yes	NULL	
11	account_section	datetime			Yes	NULL	
12	created_at	datetime			No	CURRENT_TIMESTAMP	
13	updated_at	datetime			Yes	NULL	
14	deleted_at	datetime			Yes	NULL	

Figure 1: Database design
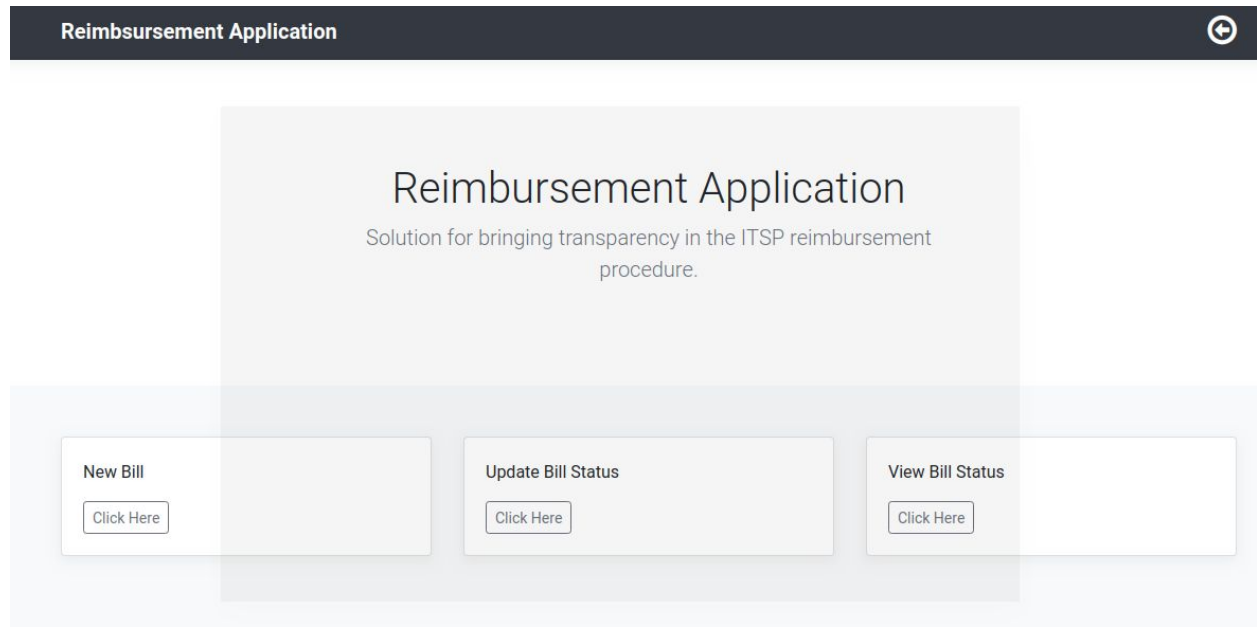
Reimbursement Application

Solution for bringing transparency in the ITSP reimbursement procedure.

New Bill

Click Here

Update Bill Status

Click Here

View Bill Status

Click Here

Figure 2: Home page

New Bills

Team Name

Enter the Team Name

Team Manager

Enter the Team Manager Name

Total Bill Amount

Enter Total Bill Amount

Bill Date

Enter Bill Date

Bill Number

Enter Bill Number

Submit

Figure 3: Adding new bills

Figure 4: Different approval options for different people

Figure 5: Approval list and option

Instruction to run the application

1. Download or clone the codes from https://github.com/itsmevishnu/ict_assignment.git.

2. Copy the files into htdocs(in widnows) /var/www/html(in linux).

3. Create a new database named ict_app in mysql using phpmyadmin or terminal command(or any other tool).

4. Import ict_app.sql to that database.

5. Find out .env file and change the DB_USERNAME and DB_PASSWORD as per your mysql username and password.

6. Open your browser and type http://localhost/ictapp/public/ (make sure AllowOverride All is enabled in httpd.conf)