



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

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**FACULTY OF COMPUTING**

**SECJ3303 INTERNET PROGRAMMING**

**GROUP PROJECT - SECTION 04**

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**Databases Import, System Setup Instructions and User Manual**

**Project Title: Iskandar Puteri Low Carbon Initiative System (IPLCIS)**

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# 1. Database Setup (SQL Statements)

The database import will also be provided in the zip. The following are statements for in case the import does not work as intended.

## 1.1 Participant Table

```
CREATE TABLE participant (  
  id bigint(11) AUTO_INCREMENT PRIMARY KEY,  
  email varchar(255) NOT NULL,  
  password varchar(255) NOT NULL,  
  icNum bigint(19) NOT NULL,  
  phoneNum int(11) NOT NULL,  
  status varchar(255) NOT NULL,  
  address varchar(255) NOT NULL,  
  category varchar(255) NOT NULL,  
  accessLevel int(11) NOT NULL  
)  
ALTER TABLE participant  
ADD accessLevel int(11) NOT NULL;
```

## 1.2 Water Consumption Table

```
CREATE TABLE waterconsumption (  
  id int(11) AUTO_INCREMENT PRIMARY KEY,  
  numDay int(11) NOT NULL,  
  date Date NOT NULL,  
  propFactor double NOT NULL,  
  billAmount double NOT NULL,  
  waterUsage double NOT NULL,  
  carbonFootprint double NOT NULL,  
  participant_id bigint(11),  
  CONSTRAINT cus_id_fk FOREIGN KEY(participant_id) REFERENCES  
  participant(id)  
)  
ALTER TABLE waterconsumption ADD COLUMN file_data LONGBLOB;
```

## 1.3 Electricity Consumption Table

```
CREATE TABLE electricityconsumption (  
  id int(11) AUTO_INCREMENT PRIMARY KEY,
```

```

numDay int(11) NOT NULL,
date Date NOT NULL,
propFactor double NOT NULL,
billAmount double NOT NULL,
electricityUsage double NOT NULL,
carbonFootprint double NOT NULL,
participant_id bigint(11),
CONSTRAINT cus_id_fk2 FOREIGN KEY(participant_id) REFERENCES
participant(id)
)
ALTER TABLE electricityconsumption ADD COLUMN file_data LONGBLOB;

```

## 1.4 Recycle Consumption Table

```

CREATE TABLE recycleconsumption (
id int(11) AUTO_INCREMENT PRIMARY KEY,
numDay int(11) NOT NULL,
date Date NOT NULL,
propFactor double NOT NULL,
billAmount double NOT NULL,
recycleUsage double NOT NULL,
carbonFootprint double NOT NULL,
participant_id bigint(11),
CONSTRAINT cus_id_fk3 FOREIGN KEY(participant_id) REFERENCES
participant(id)
)
ALTER TABLE recycleconsumption ADD COLUMN file_data LONGBLOB;

```

## 2. Project Source Code Import Instruction

Opening a Project with XAMPP, STS, and PHP MySQL:

### 2.1. Step 1: Unzip the Project Files

Begin by unzipping the file "IPLCIS.rar" to access the project files.

## **2.2. Step 2: Start XAMPP Services**

Launch XAMPP and open the control panel. Start both Apache and MySQL services by clicking on their respective "Start" buttons.

## **2.3. Step 3: Access PHPMyAdmin**

Open a web browser and navigate to PHPMyAdmin. This is typically accessed by entering "http://localhost/phpmyadmin" in the address bar.

## **2.4. Step 4: Create Database**

Within PHPMyAdmin, create a new database named "iplcis".

## **2.5. Step 5: Run SQL Commands**

After creating the database, select the "iplcis" database from the left sidebar. Then, navigate to the "SQL" tab and run the SQL commands provided in the "iplcis.sql" file. This will set up the necessary tables and structure for the project.

## **2.6. Step 6: Open STS (Spring Tool Suite)**

Launch the STS IDE on your system.

## **2.7. Step 7: Import Project**

In STS, go to "File" -> "Open Projects from File System". Select "Directory" and navigate to the IPLCIS folder that you unzipped in step 1. Click "Finish" to import the project into STS.

## **2.8. Step 8: Run Project on Server**

In the Project Explorer of STS, right-click on the IPLCIS project. Then, navigate to "Run As" -> "Run on Server". Choose the server where you want to deploy the project.

## **2.9. Step 9: Operate the System**

Refer to the user manual provided with the project to learn how to operate the system effectively. This manual should contain instructions on navigating the interface, performing tasks, and utilizing the features of the project.

Following these steps should successfully open the project using XAMPP, STS, and PHP MySQL.



## 3. User Manual

### 3.1. Step 1

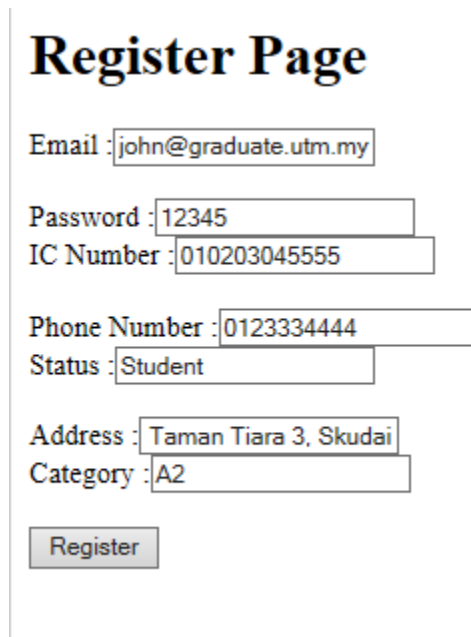
Click on the “Register User” button on the bottom of the login interface to create an account in the IPLCIS.



The image shows a light blue rounded rectangular box representing a login page. At the top center is the title "Login Page" in bold black text. Below the title are two input fields: "Email : eg. bla@graduate.utm.r" and "Password :". Below the password field is a "Login" button. At the bottom center, there is a "Register User" button, which is highlighted with a red rectangular border.

### 3.2. Step 2

Fill in the required information for the account creation.



The image shows a registration form titled "Register Page" in bold black text. Below the title are several input fields: "Email : john@graduate.utm.my", "Password : 12345", "IC Number : 010203045555", "Phone Number : 0123334444", "Status : Student", "Address : Taman Tiara 3, Skudai", and "Category : A2". At the bottom left of the form is a "Register" button.



### 3.3. Step 3

Click on the “Register” button to complete the account creation.



**Register Page**

Email :

Password :

IC Number :

Phone Number :

Status :

Address :

Category :

### 3.4. Step 4

Fill in the valid account email and password into their respective fields. Click “Login” to access the system.



**Login Page**

Email :

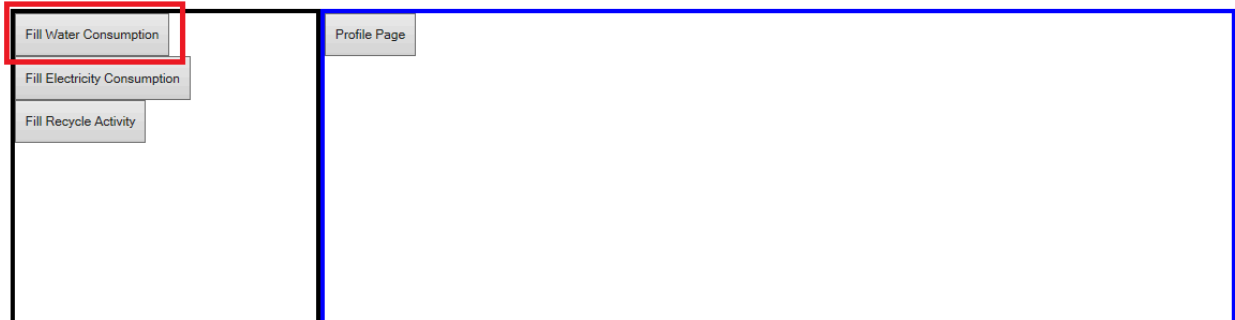
Password :

### 3.5. Step 5

Click on the “Fill Water Consumption” button to proceed to Fill Water Info Page

homepage

4



### 3.6. Step 6

Fill in the required information for the calculation of carbon data in the empty provided in the Fill Water Info Page. *(Note: Proportional Factor depends on what category you are in. Since the example registered in A2, the proportional factor will be 1.5)*

Fill Water Info Page

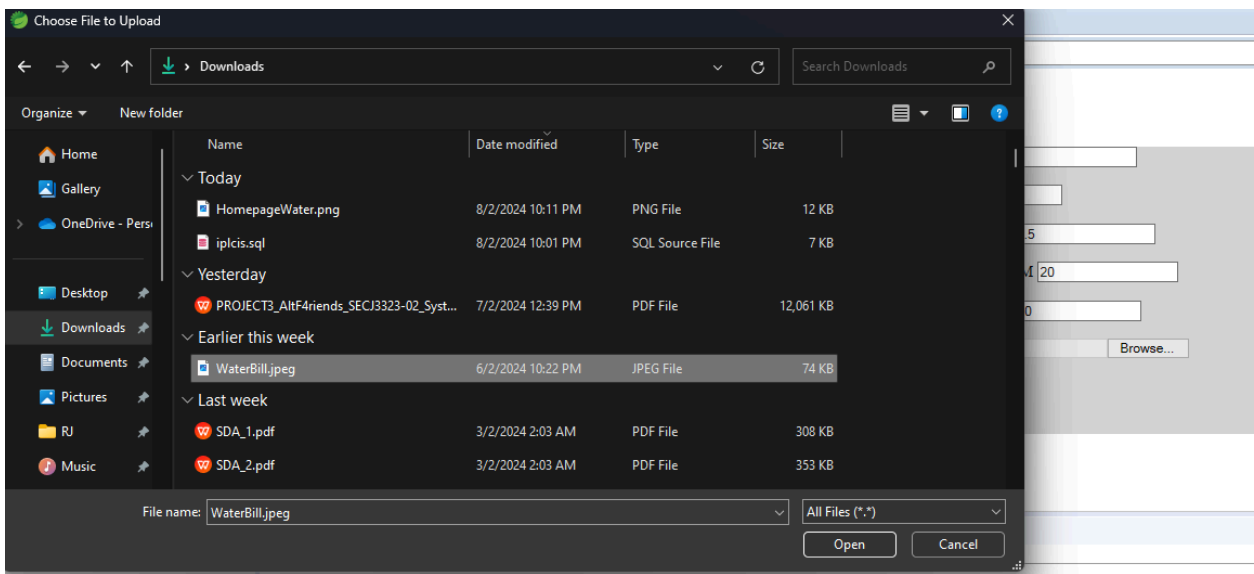
A screenshot of the "Fill Water Info Page" form. The form is a light gray rectangle with several input fields and buttons. The fields are: "Number of Days" with a value of 31, "Date" with a value of 2024-02-01, "Proportional Factor" with a value of 1.5, "Bill Amount(RM)" with a value of RM 20, and "Water Usage(ml)" with a value of 1500. There is a "File Upload" section with a "Browse..." button. At the bottom of the form is a "Submit" button.

For file upload, click on the “Browse” button to select the file to be uploaded.

Fill Water Info Page

A screenshot of the "Fill Water Info Page" form, identical to the one above. The "Browse..." button in the "File Upload" section is highlighted with a red rectangular border.

Select the appropriate bill for file submission



### 3.7. Step 7

Click on the “Submit” button to submit all water consumption data to the system.

#### Fill Water Info Page

Number of Days : 31

Date : 2024-02-01

Proportional Factor : 1.5

Bill Amount(RM) : RM 20

Water Usage(ml) : 1500

File Upload : C:\Users\asus\Downloads Browse...

Submit

### 3.8. Step 8

The system will display the water consumption data inserted recently on a list of other inserted data.

#### List All Page

Number of Days	Date	Proportional Factor	Bill Amount (RM)	Water Usage (m <sup>^3</sup> )	Carbon Footprint (kgCO2)
31	2001-12-02	1.4	23.0	23.0	9.64
31	2000-01-23	1.01	20.0	30.0	12.57
30	2023-04-23	1.01	13.0	17.0	7.12
31	2021-08-29	1.2	30.0	20.0	8.38
31	2000-11-23	1.02	20.0	50.0	20.95
28	2022-02-28	1.02	15.0	20.0	8.38
30	2000-01-30	1.11	200.0	300.0	125.7
31	2024-02-01	1.5	20.0	1500.0	628.5

[Return to Homepage](#)

### 3.9. Step 9

Click on the “Return to Homepage” button to return to the Homepage of IPLCIS.

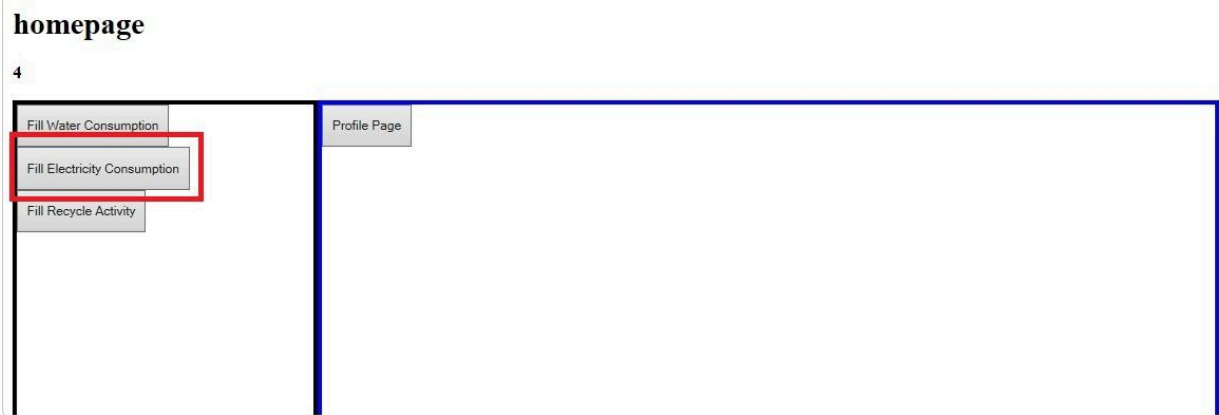
#### List All Page

Number of Days	Date	Proportional Factor	Bill Amount (RM)	Water Usage (m <sup>^3</sup> )	Carbon Footprint (kgCO2)
31	2001-12-02	1.4	23.0	23.0	9.64
31	2000-01-23	1.01	20.0	30.0	12.57
30	2023-04-23	1.01	13.0	17.0	7.12
31	2021-08-29	1.2	30.0	20.0	8.38
31	2000-11-23	1.02	20.0	50.0	20.95
28	2022-02-28	1.02	15.0	20.0	8.38
30	2000-01-30	1.11	200.0	300.0	125.7
31	2024-02-01	1.5	20.0	1500.0	628.5

[Return to Homepage](#)

### 3.10. Step 10

Click on the “Fill Electricity Consumption” button to proceed to Fill Electricity Info Page



### 3.11. Step 11

Repeat Step 6 - Step 9 to fill in the electricity consumption data and register it into the IPLCIS.

#### Fill Electricity Info Page

Number of Days :31

Date :2024-01-15

Proportional Factor :1.5

Bill Amount(RM) : RM 200

Electricity Usage(kWh) :3

File Upload : C:\Users\iasus\Downloa Browse...

Submit

#### Electricity Confirm Page

Number of Days	Date	Proportional Factor	Bill Amount (RM)	Electricity Usage (kWh)	Carbon Footprint (kgCO2)
31	2000-01-23	1.03	200.0	300.0	175.2
31	2024-01-15	1.5	200.0	3.0	1.75

Return to Homepage

### 3.12. Step 12

Click on the “Fill Recycle Activity” button to proceed to Fill Recycle Info Page

homepage

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### 3.13. Step 13

Repeat Step 6 - Step 9 to fill in the recycle activity data and register it into the IPLCIS.

Fill Recycle Info Page

Number of Days :31

Date :2024-01-25

Proportional Factor :1.5

Bill Amount(RM) : RM200

Recycle Activity(kg) :20

File Upload : C:\Users\asus\Downloads Browse...

Submit

Recycle Confirm Page

Number of Days	Date	Proportional Factor	Bill Amount (RM)	Recycle Activity (kg)	Carbon Footprint (kgCO2)
31	2002-02-20	1.2	300.0	400.0	1144.0
31	2024-01-25	1.5	200.0	20.0	57.2

Return to Homepage

### 3.14. Step 14 (Optional)

In case of needing to change information in the profile, click on “Update Profile” button in the homepage.

homepage

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### 3.15. Step 15 (Optional)

Update the fields that you need.

## Profile Page

Email :

Password :

IC Number :

Phone Number :

Status :

Address :

Category :

### 3.16. Step 16 (Optional)

Click on Update Profile to update your account information in IPLCIS

## Profile Page

Email :

Password :

IC Number :

Phone Number :

×

Status :

Address :

Category :