

Babu Madhav Institute of Information Technology, UTU

B.Sc. (IT) (5th Semester)

Subject: IT5011 - Open Source Web-Based Programming
Practical Internal - 1

Duration: 1 Hour 20 Min.

DIV – C
SET - D

Marks: 25
Date: 22nd August, 2025

Que-1. Do as directed.

Save your Application as NNN_SetNo, where NNN is the last three digits of your enrolment no. e.g. 025_SetE.

Develop a basic utility billing system with the following functionalities: Login, Customer Registration, Meter Reading Entry.

- Login Page: A Login button checks the credentials (e.g., username: admin, password: 1234). Upon successful login, redirect to the Account Registration page. If invalid, show an error message.
- Customer Registration Page:
 - Fields: Customer ID (Numeric value), Name (Alphabetic characters only), Balance (Numeric value), Register Button.
 - Clicking the Register Button saves the customer information in a session and redirects to the Meter Reading page.
- Meter Reading:
 - Fields: Previous Reading (Numeric value), Current Reading (Numeric value), Rate per Unit (Numeric value) and Submit Button.
 - On clicking the Submit Button, calculate the number of units used, compute the total bill, update the balance, and Display the Customer ID, Name, and Available Balance.
 - $\text{Units Used} = \text{Current Reading} - \text{Previous Reading}$
 - $\text{Total Bill} = \text{Units Used} * \text{Rate per Unit}$
 - $\text{Balance} = \text{Initial Balance} - \text{Total Bill}$
- **Navigation: Provide navigation facilities to redirect to specific pages.**
- **Apply necessary validations.**