

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.
 - Units Used = Current Reading - Previous Reading
 - Total Bill = Units Used * Rate per Unit
 - Balance = Initial Balance - Total Bill
- Navigation: Provide navigation facilities to redirect to specific pages.
- Apply necessary validations.