Unit 1 and Unit 2: Based on Lecture 1 and 2

The provided problem lists.

Unit 3: Based on Lecture 3

Experiment 1:

Design a class to represent a bank account. Include the following members:
Data Members:

- Name of the Account Holder
- Account number
- Type of account
- Balance amount in the account

Methods:

- To assign initial values
- To deposit an amount
- To withdraw an amount after checking balance
- To display the name and balance

Write a test application named AccountTest that demonstrate the account capabilities creating 5 objects without constructors.

Experiment 2:

Design a class to represent a bank account. Include the following members:
Data Members:

- Name of the developer
- Account number
- Type of account
- Balance amount in the account

Methods:

- To assign initial values
- To deposit an amount
- To withdraw an amount after checking balance
- To display the name and balance

Write a test application named AccountTest that demonstrate the account capabilities creating 5 objects with constructors.

Unit 4: Based on Lecture 4

Experiment 3:

Write a program which contains a class “Calculator” contains multiple sum method by using method overloading.

Experiment 4:

Write a java program to find out area of a triangle, rectangle, square and circle using method overloading.

Experiment 5:

An election is contested by 5 candidates. The candidates are numbered 1 to 5 and the voting is done by making the candidate number on the ballot paper. Write a program to read the ballots and count the votes cast for each candidate using an array variable count. In case, a number read is outside the range 1 to 5, the ballot should be considered as a "spoilt ballot" and the program should also count the number of spoilt votes. The name of candidates and number of votes of each candidate are initially assigned to during loading of the class holding the aforementioned scenario.

Experiment 6:

Design a class including four methods where the first method does the following actions

a. To output the question "Who is the inventor of JAVA?
b. To accept the answer
c. To print out "Good" and then stop, if the answer is correct
d. To output the message "Try Again", the answer is wrong
e. To display the correct answer when the answer is wrong even at the third attempt and stop.

The second method extracts a portion of a character string and print the extracted string. The third method will read a text and count all occurrences of a particular word. Finally, the last method will read a string and rewrite it in the alphabetic order. Write a test application that demonstrates the capabilities of designed class.