Date - 17/05/2024 Python

1. Create a Class: Define a class called Car with attributes make, model, and year. Add a method called display\_info() that prints out the car's make, model, and year.
2. Calculate Area of Shapes: Create a class called Shape. Define methods for calculating the area of different shapes like circle, rectangle, and triangle. Use inheritance to create subclasses for each shape type.
3. Bank Account: Create a class called BankAccount with attributes account\_number, account\_holder, and balance. Include methods to deposit and withdraw money from the account.
4. Employee Information: Create a class called Employee with attributes name, age, and salary. Add a method called display\_info() to print out the employee's information.
5. Book Catalog: Create a class called Book with attributes title, author, and pages. Add a method called display\_info() to print out the book's information.
6. Grade Calculator: Write a program that takes a student's score as input and prints out their grade (A, B, C, D, or F) based on the following criteria: A (90-100), B (80-89), C (70-79), D (60-69), F (0-59).
7. Number Guessing Game: Write a program that generates a random number between 1 and 100. Prompt the user to guess the number. Provide feedback (too high, too low, or correct) until the user guesses the correct number.
8. Factorial with Error Handling: Write a program that calculates the factorial of a non-negative integer entered by the user. Handle the scenario where the user enters a negative number gracefully using a try-except block.
9. Palindrome Check: Write a program that prompts the user to enter a string and checks if it's a palindrome (reads the same forwards and backwards). Use an if-else statement to print out the result.
10. Print Multiplication Table: Write a program that prompts the user to enter a number and then prints the multiplication table for that number from 1 to 10 using a loop.