Lab Location: A-18

Subject Name: Object Oriented Programming -I

Subject Code: 3140705

Sr.No.	Experiment
1	Write a Program that displays Welcome to Java, Learning Java Now and Programming is fun.
2	Write a program that solves the following equation and displays the value x and y: 1) 3.4x+50.2y=44.5 2) 2.1x+.55y=5.9 (Assume Cramer's rule to solve equation ax+by=e x=ed-bf/ad-bc cx+dy=f y=af-ec/ad-bc)
3	Write a program that reads a number in meters, converts it to feet, and displays the result.
4	Body Mass Index (BMI) is a measure of health on weight. It can be calculated by taking your weight in kilograms and dividing by the square of your height in meters. Write a program that prompts the user to enter a weight in pounds and height in inches and displays the BMI. Note:- 1 pound=.45359237 Kg and 1 inch=.0254 meters.
5	Write a program that prompts the user to enter three integers and display the integers in decreasing order.
6	Write a program that prompts the user to enter a letter and check whether a letter is a vowel or constant.
7	Assume a vehicle plate number consists of three uppercase letters followed by four digits. Write a program to generate a plate number.
8	Write a program that reads an integer and displays all its smallest factors in increasing order. For example if input number is 120, the output should be as follows:2,2,2,3,5.
9	Write a method with following method header. public static intgcd(int num1, int num2), Write a program that prompts the user to enter two integers and compute the gcd of two integers.
10	Write a test program that prompts the user to enter ten numbers, invoke a method to reverse the numbers, display the numbers.
11	Write a program that generate 6*6 two-dimensional matrix, filled with 0's and 1's , display the matrix, check every raw and column have an odd number's of 1's.
12	Write a program that creates a Random object with seed 1000 and displays the first 100 random integers between 1 and 49 using the NextInt (49) method.

13	Write a program for calculator to accept an expression as a string in which the operands and operator are separated by zero or more spaces. For ex: 3+4 and 3 + 4 are acceptable expressions.
14	Write a program that creates an Array List and adds a Loan object , a Date object , a string, and a Circle object to the list, and use a loop to display all elements in the list by invoking the object's to String() method.
15	Write the bin2Dec (string binary String) method to convert a binary string into a decimal number. Implement the bin2Dec method to throw a NumberFormatException if the string is not a binary string.
16	Write a program that prompts the user to enter a decimal number and displays the number in a fraction. Hint: Read the decimal number as a string, extract the integer part and fractional part from the string.
17	Write a program that displays a tic-tac-toe board. A cell may be X, O, or empty. What to display at each cell is randomly decided. The X and O are images in the files X.gif and O.gif.
18	Write a program that moves a circle up, down, left or right using arrow keys.
19	Write a program that displays the color of a circle as red when the mouse button is pressed and as blue when the mouse button is released.
20	Write a GUI program that use button to move the message to the left and right and use the radio button to change the color for the message displayed.
21	Write a program to create a file name 123.txt, if it does not exist. Append a new data to it if it already exist. write 150 integers created randomly into the file using Text I/O. Integers are separated by space.
22	Write a recursive method that returns the smallest integer in an array. Write a test program that prompts the user to enter an integer and display its product.
23	Write a generic method that returns the minimum elements in a two dimensional array.
24	Define MYPriorityQueue class that extends Priority Queue to implement the Cloneable interface and implement the clone() method to clone a priority queue.
25	Write a program that reads words from a text file and displays all the non duplicate words in descending order. The text file is passed as a command-line argument.

Subject Name: <u>Computer Organization and Architecture</u>

Subject Code: <u>3140707</u>

Sr.No.	Experiment
1	Implement Booth's Algorithm
2	Write the working of 8085 simulator GNUsim8085 and basic architecture of 8085 along with small introduction.
3	Write an assembly language code in GNUsim8085 to store numbers in reverse order in memory location.
4	Write an assembly language code in GNUsim8085 to implement arithmetic instruction.
5	Write an assembly language code in GNUsim8085 to find the factorial of a number.
6	Write an assembly language code in GNUsim8085 to implement logical instructions.
7	Design ALU using Logisim
8	Implement 16-bit single-cycle MIPS processor in Verilog HDL