

Assignment no.1

1. Write a Java program to display Hello World on the screen.
2. Write a Java program to display the asterisk pattern as shown below:

```
*****  
*****  
*****  
*****  
*****
```

3. Write a Java program to declare two integer variables, one float variable, and one string variable and assign 10, 12.5, and "Java programming" to them respectively. Then display their values on the screen
4. Write a Java program by using BufferedReader class to prompt a user to input his/her name and then the output will be shown as an example below:

Hello Enosis!

Assignment no 2

1. Write Java program to allow the user to input two integer values and then the program prints the results of adding, subtracting, multiplying, and dividing among the two values.
2. Write Java program to generate a random number between 1 to 6.
3. Write Java program to allow the user to input two float values and then the program adds the two values together. The result will be assigned to the first variable.
4. Write Java program to allow the user to input the amount of deposit, yearly interest rate (percentage), and income tax(percentage). Then the program will calculate the amount of interest that the person earns in the year.
5. .Write Java program to allow the user to input his/her age. Then the program will show if the person is eligible to vote. A person who is eligible to vote must be older than or equal to 18 years old.
6. Write a Java program to determine whether an input number is an even number
7. Write a Java program that determines a student's grade.

Assignment no 3

1. Write a Java program to calculate the revenue from a sale based on the unit price and quantity of a product input by the user.

The discount rate is 10% for the quantity purchased between 100 and 120 units, and 15% for the quantity purchased greater than 120 units. If the quantity purchased is less than 100 units, the discount rate is 0%. See the example output as shown below:

2. Write a Java program to detect key presses.

(If the user pressed number keys(from 0 to 9), the program will tell the number that is pressed, otherwise, program will show "Not allowed".)

3. Write a Java program that allows the user to choose the correct answer of a question.

(See the example below:

What is the correct way to declare a variable to store an integer value in Java?

- a. `int 1x=10;`
- b. `int x=10;`
- c. `float x=10.0f;`
- d. `string x="10";`

Enter your choice: c)

Assignment no 4
(Loops)

- 1. Write a Java program by using two for loops to produce the output shown below:**

```
*****  
*****  
*****  
*****  
*****  
*****  
*****  
*****  
*****
```

- 2. Write a Java program by using three for loops to print the following pattern:**

```
1*****  
12*****  
123*****  
1234*****  
12345*****  
123456*****  
1234567*****
```

- 3. Write Java program to prompt the user to choose the correct answer from a list of answer choices of a question.**

(The user can choose to continue answering the question or stop answering it. See the example below:

What is the command keyword to exit a loop in Java?

- a. int
- b. continue
- c. break
- d. exit)

- 4. Write Java program to print the table of characters that are equivalent to the Ascii codes from 1 to 122.**

(The program will print the 10 characters per line.)

Assignment no 5

(Arrays)

1. **By using the bubble sort algorithm, write a Java program to sort an integer array of 10 elements in ascending.**
2. **By using the sequential search algorithm, write a Java program to search for an element of an integer array of 10 elements.**
3. **Write a program to sum up all the elements of an array(accept the elements from users.)**

Assignment No. 6

- 1. Java program to reverse a number using for, while and recursion**
- 2. Java Program to Calculate Area of Rectangle**
- 3. Java Program to get input from user**
- 4. Java Program to check Even or Odd number**
- 5. Java program to calculate area of Square**
- 6. Java program to calculate area of Triangle**

Assignment no 7

- 1. Java Program to find duplicate Characters in a String**
- 2. Java program to display prime numbers from 1 to 100 and 1 to n**
- 3. How to convert a char array to a string in Java?**
- 4. java program to find factorial of a given number using recursion**
- 5. How To Convert Char To String and a String to char in Java**
- 6. Java Program for Binary to decimal conversion**

Assignment No 8

Object Oriented Programming

- 1. Java – Constructor Chaining with example**
- 2. Constructor Overloading in Java with examples**
- 3. Multilevel inheritance in java with example**
- 4. Super keyword in java with example**
- 5. Java – Default constructor with example**
- 6. Encapsulation in Java with example**
- 7. hybrid inheritance in java with example program**
- 8. Java – parameterized constructor with example**
- 9. Exception handling in Method overriding with example**
- 10. Write a program to implement Cloneable Interface in Java – Object Cloning**

Assignment No. 9

- 1. Hierarchical Inheritance in java with example program**
- 2. Write a program to implement Nested or Inner interfaces in Java**
- 3. Write a program to implement Tag or marker interfaces in Java**
- 4. How to throw exception in java with example**
- 5. Checked and unchecked exceptions in java with examples**

Assignment No 10

String and Threading

1. Write a program to Convert String to int in Java
2. Program to find duplicate characters in a String
3. Write a program to Convert char to String and vice versa
4. Write a program to – ASCII to String conversion
5. Write a program to Remove trailing spaces of a String
6. Daemon thread in Java with example
7. A simple program creating and invoking a thread object by implementing Runnable interface
8. A program with multiple threads performing concurrent operations.
9. A program which shows altering order of threads by changing priority.
10. A thread that withdraw a given amount from a given account.

Assignment No. 11

Java I/O

- 1. How to read a file in java using BufferedInputStream**
- 2. How to read a file in java using BufferedReader**
- 3. Append to a file in java using BufferedWriter, PrintWriter, FileWriter**
- 4. How to rename file in Java using renameTo() method**
- 5. How to get the last modified date of a file in java**
- 6. How to Copy a File to another File in Java**

Assignment No 12

Collection

- 1. Write a program to sort Hashtable in java**
- 2. Write a program to sort ArrayList in descending order in Java**
- 3. Write a program to – Remove first and last element from LinkedList**
- 4. Write a program to – Replace element in a LinkedList**
- 5. Write a program to – Remove all elements from LinkedList example**
- 6. Write a program to Get the index of last occurrence of an element in LinkedList**
- 7. Write a program to Iterate a LinkedList in reverse sequential order – java**
- 8. Write a program to Search elements in Vector using index**
- 9. Write a program to copy one hashmap content to another hashmap**
- 10. Write a program to Iterate TreeMap in reverse order**