Sheet #1

Answer the following Exercises:

- Write a java program Let user enter a string and print the length of the string.

- Get the first and last characters of the string "java exercise".

- let the user enter a letter and search the previous string of that character.(True For Found letter and False for not Found letter)

- Compare two strings. s1 = "asd", s2 = "asD".

- Write a Java program to get the index of characters **(a,e,s,y)** in the string **"Hello my name is ali".**

- Write a Java program to **divide** a string **in 2 parts**.

- Write a Java program that **removes a specified word** from a text entered by user. then **print the new string**.

- Write a program to find **the first and the last occurrence** of the letter **'o'** in **"Hello, World"**

- Write a program to **get a random character** from **"Hello,World"** each time the program runs.

- How would you write the following arithmetic expression in Java (r=1, a=1, b=1, c=1, d=1)?

$$\frac{4}{3(r+34)} - 9(a+bc) + \frac{3+d(2+a)}{a+bd}$$

- How would you write the following arithmetic expression in Java (r=1, t=1)?

$$5.5 \times (r + 2.5)^{2.5+t}$$

- Write a program that prompts the user to enter two points (x1, y1) and (x2, y2) and displays their distance between them. The formula for computing the distance is.

$$\sqrt{(x2 - x1)^2 + (y2 - y1)^2}$$

- **(Find the number of years)** Write a program that prompts the user to **enter the minutes** (e.g., 1 billion), and displays the **number of years** and **days for the minutes**. For simplicity, assume a year has 365 days.

  - (**What if we want to get Years, Months and Days**)

    (For simplicity, assume a month has 30 days.)

- **(Sum the digits in an integer)** Write a program that reads an integer **between 0 and 999** and **adds all the digits in the integer.** For example, if an integer is 932, the sum of all its digits is 14.

  - **Hint:** Use **the % operator** to extract digits and use **the / operator** to remove the extracted digit. For instance, **932 % 10 = 2** and **932 / 10 = 93**