21/06/23

1) longest substring without repeating characters,

given a strings, find the length of the longest substring without repeating character.

ex: 1-

I/p: "abcabcbb"

O/p: 3

explanation: The answer is "abc", with the length of 3.

Constructor:

Introduction:

In java, constructor is a special method, which is invoked when an object of the class is created. It is used to initializing the class variable.

There are some rules for constructor creation:

→ A constructor always has the same name as the class name

→ A constructor is special method that does not has any return type

ex:

```
public class Car{
    public Car(){
        // code block
    }
}
```

The constructor is of two types:

1. Default constructor
2. Parameterized constructor

→ Default Constructor: If you do not have any constructor in your class then java compiler adds a default constructor to the class during compilation.

example:

```
public class Car{
    private string doors;
    private string engine;
    private string driver;
    private uint speed;

    public Car(){
        doors = "closed";
        engine = "on";
        driver = "seated";
        speed = 10;
    }
    public string Run(){
        if (doors.equals("closed") &&
engine.equals("on") && driver.equals("seated")
&& speed.equals(10)){
            return "car is running"; }
        else{
            return "car is not running";}
    }
```

When "Car" is instantiated with another "Hello" class, the default constructor of Car class gets invoked & initaized all the variables.

```
public class Hello {
    public static void main (String []args){
        Car car = new Car();
        S.O.P( car.Run());
    }
}
```

Parameterized Constructor:

Constructor which accepts the parameters is called parameterized constructor.

By using parameterized constructor you can provide values to variable during ~~initializing~~ initiating the class.

Default Methods:

toString();

Character Method:

charAt → char b=String.charAt(Index)

getchars() → getChars(int srcBIndex, int srcEIndex, char []dest, int dstBIndex)

getBytes()

toCharArray()

String comparision:

equals() and equalsIgnoreCase()

regionMatches()

startswith() & endswith()

compareTo()

Modifying a string:

substring()

concat()

replace()

trim()

Data conversion:

valueOf()

String Buffer Constructors:

length() & capacity()

getChars()

append()

insert()

reverse()

delete() and deleteCharAt()

replace()

substring()

Task

Bank Account Management:

Create a class called 'BankAccount' that represent a bank account. The 'BankAccount' class should have instance variables (such as 'accountNumber', 'accountHolderName', 'balance', etc.

Write a constructor for the 'BankAccount' class that takes these parameters & initializes the instance variables.

Use the BankAccount class to create bank

account objects eg. simulate banking operations like deposit, withdraw & balance enquiry.

Exception Handling:

Java is a mecha