**Course 2 - Backend and Database Development**

**Day 2: 10 Dec 2024**

**Array :** In Java Array is known as reference data type which is use to store more than one of same types. In Java array is known as fixed in memory size.

Syntax to declare the array in java

datatype arrayName[];

int abc[];

initialization of array in java

int num[]={10,20,30,40,50,60}; static value

creating memory for array in java

int xyz[]=new int[10]; xyz array variable can hold 10 number start from 0 index position. Dynamic value.

Taking the value through keyboard in Java.

1. Using Scanner class.

Scanner is a pre defined class which provided set of method which help to scan value through keyboard.

Syntax to create the Scanner class object.

Scanner sc = new Scanner(System.in);

Scanner is a pre defined class part of util package. Package is a collection of classes as well as interfaces. We need to import that package.

import java.util.Scanner;

nextInt

nextFloat

nextDouble

nextBoolean

next for string value

Java OOPs Concept

Object: object is a real world entity.

Property or state ---------🡪accno, name, amount(instance variable) etc

Account

Behaviour -🡪 method -🡪 withdraw, deposit, transferAmount, checkBalance etc

Class : Blue print of object or template of object or collection of object which have same property and behaviour.

Syntax to create the object of user defined class.

ClassName objectname = new ClassName();

Account acc1 = new Account(); // heap memory.

acc1.methodName();

Types of variable or fields

In Java Variables are divided into 3 types.

1. Instance variable : the variable which declared outside a method ie main method or user defined is known as instance variable. Instance variable hold default value respective there data type int family –0, float family 0.0, char –space, Boolean false, String null etc. instance variable we can access in all method but method must be part of same class.
2. Local variable : The variable which declared inside a method including main method is known as local variable. Local variable doesn’t hold any default value we need initialize. The scope of the variable within that method where it declared.
3. Static variable

When local variable or parameter variable have same name then local variable hide the visibility of instance variable. If we need to use same name for both instance variable and local variable then we can use this keyword with instance variable to refer to instance variable.

0.1

By default any decimal number consider as double. Double memory size is 8 byte. So if we want to store the value in float we need to do explicit type casting.

String : String is a pre defined class which help to store more than value character in double quote.

char a=’g’;

char gender=’m’;

char gender[]={‘m’,’a’,’l’,’e’};

String gender = “Male”;

String fname= “Raj Deep”;