Java and AWS Training

Day 1 : 14-11-2022

**Program :** set of instruction to perform a specific task.

Structure programming language

OOP : Object oriented programming language

Functional programming language

AOP : Aspect oriented programming language

C: is a basic structured programming language.

#include<stdio.h>

Global declaration

Pre defined function or user defined function.

#include<stdio.h>

void main() {

printf(“Welcome to C language “);

}

Data types

Operators

If statement

Switch statement

Looping

Pointer

Function

Enum

Structure

struct Emp {

int id;

float salary;

char name[10];

};

void main() {

struct Emp e1;

e1.id, e1.salary, e1.name

}

Limitation of procedure language

Data security

Re-usability

void mno() {

}

void xyz() {

mno();

}

void abc() {

xyz();

}

void main() {

abc();

}

OOPs : Object Oriented Programing system

object : object is any real world entity.

Properties or state-🡪 have -🡪 variables / fields

Person

Behavior --🡪 do/does 🡪 functions / methods

Bank

Car

Animal

Customer

Employee

class : blue print of object or template of object or user defined data type which help to create object.

syntax of class

class ClassName {

variable or field declaration;

methods or functions;

}

class App {

public static void main(String args[]) {

System.out.println(“Welcome to Java..”);

}

}

We need to save the program using ClassName.java

Please download java 8 or 11 version

class App {

public static void main(String args[]) {

System.out.println("Welcome to Java...");

}

}

Save the program App.java

javac App.java : compile the program

java App : run the program

class App {

public static void main(String args[]) {

System.out.println("Welcome to Java...");

System.out.println("Welcome to Java...");

System.out.println("Welcome to Java...");

System.out.print("Welcome to Java...");

System.out.print("Welcome to Java...");

System.out.printf("Welcome to Java...");

}

}

Variable : variable is name which hold value and value can change during the execution of program.

Data types: data type is a type of data which tells what type of data it can hold.

It divided into two types.

1. primitive data types : this data types is use to store only value

8 types

1. byte 1byte
2. short 2 byte
3. int 4 byte
4. long 8 byte : without decimal
5. float 4 byte
6. double 8 byte : with decimal
7. char 2 byte : single character
8. boolean 1 bit : true or false.
9. non primitive data types : this data type is use to store value as well as reference of another data types.

4 types

array

class : can pre defined or user defined

interface can pre defined or user defined

enum can pre defined or user defined

type casting :

Converting one data type to another data type is known as type casting.

2 types

Implicit type casting:

Explicit type casting:

------------------🡪 implicit --------------🡪

byte short int long

🡨------------ explicit ------------------------

-----🡪 implicit----------🡪

int float

🡨------explicit ---------

Operator :

Arithmetic operator : +, -, \*, /, %

Conditional operator or relational : >, >=, <, <=, ==, !=

Logical operator : &&, ||, !

Assignment operator : =

Increment and decrement : ++, --

Bitwise : &, |, ^

instanceOf

if statement

1. simple if

if(condition) {

}

1. if else

if(condition) {

}else {

}

1. nested if

if(condition) {

if(condition){

}else {

}

}else {

}

1. if else if

if(condition) {

}else if(condition) {

}else if (condition) {

}else {

}

1. switch statement

in switch statement use can take the decision which block we want to execute

syntax

int choice=1;

switch(choice) { // variable type can be int or char or string

case 1:block1;

break;

case 2:block2

break;

case 3: block3

break;

default : default block

break;

}

Taking the value through keyboards in java

using Scanner class.

Scanner is a pre defined class part of util package. Package is a collection of classes and interfaces.

We need to create the Scanner class object

Scanner sc = new Scanner(System.in);

Once we created Scanner class object we will get the error because Scanner is part of util package.

import java.util.Scanner;

looping :it is use to execute the task again and again till the condition become false.

while loop

do while loop

for loop

initialization : start and end position

condition : if true it do the task.

Body of the loop

Increment or decrement

for each loop or enhanced loop : is use to retrieve the value from array or collection of classes.