Java assignment 01

1)create a java program to print your mother and father name, age, salary, phonenumber, address like city state country.

import java.util.Scanner;

public class Family {

public static void main(String[] args) {

// TODO Auto-generated method stub;

System.out.println("------This is the java program for printing father and mother details-----\n\n");

Scanner Scanner =new Scanner(System.in);

System.out.println("Enter your Father's name");

String fatherName=Scanner.next();

System.out.println("Enter your Mother's name");

String motherName=Scanner.next();

System.out.println("Enter your Father's age");

int fatherAge=Scanner.nextInt();

System.out.println("Enter your Mother's age");

int motherAge=Scanner.nextInt();

System.out.println("Enter your Father's salary");

float fatherSalary=Scanner.nextFloat();

System.out.println("Enter your Mothers's salary");

float motherSalary=Scanner.nextFloat();

System.out.println("Enter your Father's Phone number");

double fatherPhone=Scanner.nextDouble();

System.out.println("Enter your Mother's Phone number");

double motherPhone=Scanner.nextDouble();

System.out.println("Enter your Father's City");

String fatherCity=Scanner.next();

System.out.println("Enter your Mother's city");

String motherCity=Scanner.next();

System.out.println("\n---The details of your Father---");

System.out.println("Name :"+fatherName);

System.out.println("Age :"+fatherAge);

System.out.println("Salary :"+fatherSalary);

System.out.println("Phone Number:"+fatherPhone);

System.out.println("City :"+fatherCity);

System.out.println("\n---The details of your Mother---");

System.out.println("Name :"+motherName);

System.out.println("Age :"+motherAge);

System.out.println("Salary :"+motherSalary);

System.out.println("Phone Number:"+motherPhone);

System.out.println("City :"+motherCity);

}

}

----------------------------------------------------------------------------------------

2)Write a java program to print the below msg in the given format

hello

welcome to

edubridge online classes

public class Sample {

public static void main(String[] args) {

// TODO Auto-generated method stub

System.out.println("\t\t\t\t\thello \n\t\tWelcome\t\tto\n\tedubridge\tonline\t classes");

}

}

---------------------------------------------------------------------------------------------

3)What is default package in java?

The default package is a collection of java classes whose source files do not contain and package declarations. These packages act as the default package for such classes.

---------------------------------------------------------------------------------------------

4)Scanner class is in which package?

java.util.package.

---------------------------------------------------------------------------------------------

5)list the methods of Scanner class.

nextBoolean() Reads a boolean value from the user

nextByte() Reads a byte value from the user

nextDouble() Reads a double value from the user

nextFloat() Reads a float value from the user

nextInt() Reads an int value from the user

nextLine() Reads a String value from the user

nextLong() Reads a long value from the user

nextShort() Reads a short value from the user

---------------------------------------------------------------------------------------------

6)list the types of datatypes with size and give an example of each by doing declaring and initializating the variables.

byte 1 byte Stores whole numbers from -128 to 127

short 2 bytes Stores whole numbers from -32,768 to 32,767

int 4 bytes Stores whole numbers from -2,147,483,648 to 2,147,483,647

long 8 bytes Stores whole numbers from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807

float 4 bytes Stores fractional numbers. Sufficient for storing 6 to 7 decimal digits

double 8 bytes Stores fractional numbers. Sufficient for storing 15 decimal digits

boolean 1 bit Stores true or false values

char 2 bytes Stores a single character/letter or ASCII values

----------------------------------------------------------------------------------------------

7)Write a program to display the names of your friends by calling the static methods.

public class FriendName {

static String name="jagan";

static void friName() {

System.out.println("MY Friend name is "+name);

}

public static void main(String[] args) {

// TODO Auto-generated method stub

System.out.println("Displaying My Friend name");

friName();

}

}

---------------------------------------------------------------------------------------------

8)Write a program to add two number by using static method

public class StaticAddition {

static int a=30;

static int b=40;

static void addition() {

int c=a+b;

System.out.println("The of two static number is "+c);

}

public static void main(String[] args) {

// TODO Auto-generated method stub

System.out.println("PROGRAM FOR STATIC ADDITION");

addition();

}

}

----------------------------------------------------------------------------------------------

9)Explain the public static void main(String[] args) in detail.

Java main method is the entry point of any java program. Its syntax is always public static void main(String[] args). You can only change the name of String array argument, for example you can change args to myStringArgs. Also String array argument can be written as String... args or String args[].

public:

This is the access modifier of the main method. It has to be public so that java runtime can execute this method. Remember that if you make any method non-public then it’s not allowed to be executed by any program, there are some access restrictions applied. So it means that the main method has to be public.

static:

When java runtime starts, there is no object of the class present. That’s why the main method has to be static so that JVM can load the class into memory and call the main method. If the main method won’t be static, JVM would not be able to call it because there is no object of the class is present.

void:

Java programming mandates that every method provide the return type. Java main method doesn’t return anything, that’s why it’s return type is void. This has been done to keep things simple because once the main method is finished executing, java program terminates. So there is no point in returning anything, there is nothing that can be done for the returned object by JVM. If we try to return something from the main method, it will give compilation error as an unexpected return value.

main:

This is the name of java main method. It’s fixed and when we start a java program, it looks for the main method

----------------------------------------------------------------------------------------------------

10)Write a program to display names of days by using commandLine arguments.

----------------------------------------------------------------------------------------------

11)What are the rules of naming the java file.

Packages: Names should be in lowercase.

Classes: Names should be in CamelCase.

Interfaces: Names should be in CamelCase.

Methods: Names should be in mixed case.

Variables: Names should be in mixed case.

Constants: Names should be in uppercase.

-------------------------------------------------------------------------------------------------------

12)what are the rules of naming the class

Class names should be nouns, in mixed cases with the first letter of each internal word capitalized. Interfaces names should also be capitalized just like class names. Use whole words and must avoid acronyms and abbreviations.

----------------------------------------------------------------------------------------------

13)what are the rules for naming the methods

Methods should be verbs in lowerCamelCase or a multi-word name that begins with a verb in lowercase; that is, with the first letter lowercase and the first letters of subsequent words in uppercase. Local variables, instance variables, and class variables are also written in lowerCamelCase .

----------------------------------------------------------------------------------------------

14)what are the rules for naming variables in java

Variable names are case-sensitive. ...

Subsequent characters may be letters, digits, dollar signs, or underscore characters. ...

If the name you choose consists of only one word, spell that word in all lowercase letters.

----------------------------------------------------------------------------------------------

15)which is the main entry point of java program

public static void main(String[] args){

}

16)who is invoking the main method of java

Jvm starts main thread to call main method

----------------------------------------------------------------------------------------------

17)why main has to be static method components of java program are?

When java runtime starts, there is no object of the class present. That's why the main method has to be static so that JVM can load the class into memory and call the main method. If the main method won't be static, JVM would not be able to call it because there is no object of the class is present.

----------------------------------------------------------------------------------------------

18)what is jvm,jre,jdk?

JDK = Java Runtime Environment (JRE) + Development tools. JRE = Java Virtual Machine (JVM) + Libraries to run the application. JVM = Only Runtime environment for executing the Java byte code.

----------------------------------------------------------------------------------------------

19)Explain the components of compile time environments and run time environments.

Runtime environment is a state of the target machine, which may include software libraries, environment variables, etc., to provide services to the processes running in the system.

----------------------------------------------------------------------------------------------

20)what is JIT?

Just-in-time, or JIT, is an inventory management method in which goods are received from suppliers only as they are needed. The main objective of this method is to reduce inventory holding costs and increase inventory turnover.

----------------------------------------------------------------------------------------------

21)different types of memory in jvm

Loading of code

Verification of code

Executing the code

It provides a run-time environment to the users

----------------------------------------------------------------------------------------------

22)In which area .class is stored?

All the class variable primitive or object references (which is just a pointer to location where object is stored i.e. heap) are also stored in heap. Classes loaded by ClassLoader and static variables and static object references are stored in a special location in heap which permanent generation.

----------------------------------------------------------------------------------------------

23)In which area object are stored?

All objects in Java are stored on the heap. The "variables" that hold references to them can be on the stack or they can be contained in other objects (then they are not really variables, but fields), which puts them on the heap also. The Class objects that define Classes are also heap objects.

----------------------------------------------------------------------------------------------

24)Why do we call as java simple? Java is very easy to learn, and its syntax is simple, clean and easy to understand. According to Sun Microsystem, Java language is a simple programming language because: Java syntax is based on C++ (so easier for programmers to learn it after C++