**Java Assignment – Day 2 and Day 3**

**Q1.** accepting three numbers and display the lowest number out of three numbers

Sol:

**package** com.training.core.java.lab.day2and3;

/\*\*

\*

\* **@author** neha15376

\* accepting three numbers and display the lowest number out of three numbers

\*/

**public** **class** Question2\_1 {

**public** **int** smallestNumber(**int** n1, **int** n2, **int** n3) {

**if**(n1 < n2) {

**if**(n1<n3) {

**return** n1;

}

}

**else** {

**if**(n2<n3) {

**return** n2;

}

}

**return** n3;

}

**public** **static** **void** main( String[] args )

{

Question2\_1 q = **new** Question2\_1();

**int** n = q.smallestNumber(12, -2, 0);

System.***out***.println("Smallest number is "+n);

}

}

**Q2.** Calculate Total and Percentage. If percentage is greater than 50 then display “PASS” else display “FAIL”

Sol.:

**package** com.training.core.java.lab.day2and3;

/\*\*

\*

\* **@author** neha15376

\* Calculate Total and Percentage. If percentage is greater than 50 then display “PASS” else display “FAIL”

\*/

**public** **class** Question2\_2 {

**int** studentId;

String studentName;

**int** studentAge;

**int** marks1;

**int** marks2;

**int** marks3;

**public** Question2\_2(**int** studentId, String studentName, **int** studentAge, **int** marks1, **int** marks2, **int** marks3){

**this**.studentId = studentId;

**this**.studentName = studentName;

**this**.studentAge = studentAge;

**this**.marks1 = marks1;

**this**.marks2 = marks2;

**this**.marks3 = marks3;

}

**private** **double** calculatePercent() {

**int** total = **this**.marks1 + **this**.marks2 + **this**.marks3;

**double** percentage = (total/3.0);

**return** percentage;

}

**public** **void** result() {

**double** p = calculatePercent();

**if**(p>50.0) {

System.***out***.println("Pass");

}

**else** {

System.***out***.println("Fail");

}

}

**public** **static** **void** main( String[] args )

{

Question2\_2 student = **new** Question2\_2(1,"Abc",20, 34, 45, 67);

student.result();

}

}

**Q3. Display grade w.r.t marks of 3 subjects**

**Sol:**

**package** com.training.core.java.lab.day2and3;

/\*\*

\*

\* **@author** neha15376

\* to get grade of 3 subject marks.

\*/

**public** **class** Question2\_3 {

**int** studentId;

String studentName;

**int** studentAge;

**int** marks1;

**int** marks2;

**int** marks3;

**public** Question2\_3(**int** studentId, String studentName, **int** studentAge, **int** marks1, **int** marks2, **int** marks3){

**this**.studentId = studentId;

**this**.studentName = studentName;

**this**.studentAge = studentAge;

**this**.marks1 = marks1;

**this**.marks2 = marks2;

**this**.marks3 = marks3;

}

**public** String result() {

**int** total = **this**.marks1 + **this**.marks2 + **this**.marks3;

**int** average = total/3;

**if**(average>=90)

**return** "A+";

**else** **if**(average>=80)

**return** "A";

**else** **if**(average >= 70)

**return** "A-";

**else** **if**(average >= 60)

**return** "B+";

**else** **if**(average >=50)

**return** "B";

**else**

**return** "FAIL";

}

**public** **static** **void** main( String[] args )

{

Question2\_3 stud = **new** Question2\_3(1,"Abc",25, 57, 45, 67);

System.***out***.println("Grade obtained: "+stud.result());

}

}

**Q4.** to get lucky number of given number

Sol:

**package** com.training.core.java.lab.day2and3;

/\*\*

\*

\* **@author** neha15376

\* to get lucky number of given number

\*/

**public** **class** Question2\_4 {

**public** **static** **int** getLuckyNumber(**int** n) {

**if**(n/10 == 0) {

**return** n;

}

**int** sum = 0;

**while**(n>0) {

**int** d = n%10;

sum += d;

n /= 10;

}

**return** *getLuckyNumber*(sum);

}

**public** **static** **void** main( String[] args )

{

System.***out***.println("Lucky number: "+ *getLuckyNumber*(123457890));

}

}

**Q5.** accepting a number and display the multiplication table of the given number

Sol:

**package** com.training.core.java.lab.day2and3;

/\*\*

\*

\* **@author** neha15376

\* accepting a number and display the multiplication table of the given number

\*/

**public** **class** Question2\_5 {

**public** **static** **void** getTable(**int** n) {

**for**(**int** i=1;i<=10;i++) {

System.***out***.println(n +" \* "+i+" = "+i\*n);

}

}

**public** **static** **void** main( String[] args )

{

*getTable*(19);

}

}

**Q6.** accepting three numbers and display the lowest number out of three numbers

Sol:

**package** com.training.core.java.lab.day2and3;

/\*\*

\*

\* **@author** neha15376

\* accepting three numbers and display the lowest number out of three numbers

\*/

**public** **class** Question2\_6 {

**public** **static** **int** getLowestNumber(**int** a, **int** b, **int** c) {

**int** result = (a<b)?((a<c)?a:c):(b<c?b:c);

**return** result;

}

**public** **static** **void** main( String[] args )

{

**int** lowest = *getLowestNumber*(12,2,0);

System.***out***.println("Lowest number:"+lowest);

lowest = *getLowestNumber*(12,-2,0);

System.***out***.println("Lowest number:"+lowest);

lowest = *getLowestNumber*(-12,2,0);

System.***out***.println("Lowest number:"+lowest);

lowest = *getLowestNumber*(0,0,0);

System.***out***.println("Lowest number:"+lowest);

}

}

**Q7.**

**1.**

package com.training.core.java.lab.day2and3;

//package com.training.core.java.lab; => throws error only one package statement allowed

//one import statement - no error

import java.util.\*;

//only one public class - no error

public class Question2\_7 {

//Two methods with same name - but different parameters - no error

public void aMethod() {

}

public void aMethod(int a) {

}

}

//Ten non public classes - no error

class One{

}

class Two{

}

class Three{

}

class Four{

}

class Five{

}

class Six{

}

class Seven{

}

class Eight{

}

class Nine{

}

class Ten{

}

**Sol:** Option C - Two package statements

**2.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_8 {

**public** **static** **void** main(String[] args) {

**byte** i=1,j=1;

**while**(i==3 && j<5) {

System.***out***.println(i+" "+j+" ");

i++;

j+=2;

}

}

}

**Sol:** OptionC: No output

**3.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_9 {

**public** **static** **void** main(String[] args) {

**int** i=1;

**for**(;;) {

}

}

}

**Sol:** OptionA: Repeats infinite loop

**4.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_10 {

**public** **static** **void** main(String[] args) {

**int** k= 3;

**do** {

System.***out***.print(k+" ");

}**while**(--k>0);

}

}

**Sol:** Output: OptionC - 3 2 1

**5.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_11 {

**public** **static** **void** main(String[] args) {

**int** x = 10;

**do** {

**if**(x-- > 2) {

**break**;

//System.out.print(x+" ");--> unreachable statement

}

}**while**(x>5);

}

}

**Sol:** OptionE - Compilation error

**6.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_12 {

**public** **static** **void** main(String[] args) {

**int** x = 1\*2 + 3\*4 - 5;

**int** y = 1\*2 + 3\*(4 - 5);

System.***out***.println(y+x);

}

}

**Sol:** Output: OptionD - 8

**7.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_13 {

**public** **static** **void** main(String[] args) {

**int** y = Integer.*parseInt*(args[1]);

System.***out***.println(y);

}

}

**Sol:** OptionC - java Program 1 - java.lang.ArrayIndexOutOfBoundsException: Index 1 out of bounds for length 1

**8.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_14 {

**public** **static** **void** main(String[] args) {

**int** a[] = **new** **int**[-10];

}

}

**Sol:** OptionD - java.lang.NegativeArraySizeException

**9.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_15 {

**public** **static** **void** main(String[] args) {

//for(int j=0,int k=5;j<k;k--); - error - int k

**for**(;;System.***out***.print("a")); //no error

//for(); - error

//for(int k =10;k--;k>0); - error - Type mismatch

}

}

**Sol:** OptionB - for(;;System.out.print("a"));

**10.**

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_16 {

**public** **static** **void** main(String[] args) {

**for**(**int** j=0,k=5;j<k;k--);

**for**(**int** j=0;j++ < 3;);

**for**(**int** i=0;i<5;i++,System.***out***.print(i+".go "));

}

}

**Sol:** OptionA - 1.go 2.go 3.go 4.go 5.go

**11.**

**package** com.training.core.java.lab.day2and3;

**import** java.time.LocalDate;

**public** **class** Question2\_17 {

**public** **static** **void** main(String[] args) {

LocalDate date = LocalDate.*of*(2015, 1, 20);

System.***out***.println(date);

}

}

**Sol:** OptionA - 2015-01-20

12.

//This is a comment - no error

//package com.training.core.java.lab; - error

//class Abc{} - syntax error

//() -> System.out.println("Lambdas are great"); - syntax error

**package** com.training.core.java.lab.day2and3;

**public** **class** Question2\_18 {

**public** **static** **void** main(String[] args) {

}

}

Sol: Option A - comments