# *“Assignment”*

Q.1 Create two integer variables length and breadth and assign values then check if they are square values or rectangle values.

if both values are equal then it's square otherwise rectangle.

ANS:

void main() {

double length = 5;

double breadth = 6;

if (breadth == length){

print("square");

}else{

print("rectangle");

}

}

Q.2: Take two variables and store age then using if/else condition to determine oldest and youngest among them.

ANS:

void main() {

int taimoor = 21;

int turab = 20;

if(taimoor>=20){

print("taimoor is elder than turab");

}else if (turab==20){

}else{

print("taimoor is younger than turab");

}

}

Q.3: A student will not be allowed to sit in exam if his/her attendance is less than 75%. Create integer variables and assign value:

// Number of classes held = 16,

// Number of classes attended = 10,

// and print percentage of class attended.

// Is student is allowed to sit in exam or not?

ANS:

void main() {

double totalStrenght = 16;

double studentPresent = 10;

double checkit =studentPresent/totalStrenght \*100;

print("the percentage of attendence is $checkit");

if(checkit>=75){

print("this student is eligible for exams");

}else{

print("this student is not eligible for exams");

}

}

Q.4: Create integer variable assign any year to it and check if a year is leap year or not.

// If a year is divisible by 4 then it is leap year but if the year is century year like 2000, 1900, 2100 then it must be divisible by 400.

// i.e: Use % ( modulus ) operator.

ANS:

void main() {

int year =2020;

if(year%4==0||year%400==0){

print("it is a leap year");

}else{

print("it is not leap year");

}

}

Q.5  Write a program to read temperature in centigrade and display a suitable message according to temperature:  
You have num variable temperature = 42;  
Now print the message according to temperature:  
temp < 0 then Freezing weather  
temp 0-10 then Very Cold weather  
temp 10-20 then Cold weather  
temp 20-30 then Normal in Temp  
temp 30-40 then Its Hot  
temp >=40 then Its Very Hot

ANS:

void main() {

num temperature = 10;

if (temperature >= 40) {

print("It's Very Hot");

} else if (temperature < 40 && temperature >= 30) {

print("It's Hot");

} else if (temperature < 30 && temperature >= 20) {

print("Normal in Temperature");

} else if (temperature < 20 && temperature >= 10) {

print("Cold Weather");

} else if (temperature < 10 && temperature >= 0) {

print("Very Cold Weather");

} else {

print("Freezing Weather");

}

}

Q.6: Write a program to check whether an alphabet is a vowel or consonant.

ANS:

void main() {

String alphabet = "h";

if (alphabet == 'a' ||

alphabet == 'e' ||

alphabet == 'i' ||

alphabet == 'o' ||

alphabet == 'u') {

print('$alphabet is a vowel.');

} else {

print('$alphabet is a consonant.');

}

}

Q.7: Write a program to calculate and print the Electricity bill of a given customer. Create variable for customer id, name, unit consumed by the user, bill\_amount and print the total amount the customer needs to pay. The charge are as follow :

// Unit Charge/unit

// upto 199 @1.20

// 200 and above but less than 400 @1.50

// 400 and above but less than 600 @1.80

// 600 and above @2.00;

// Test Data :

// id: 1001

// name: James

// units: 800

// Expected Output :

// Customer IDNO :1001

// Customer Name :James

// unit Consumed :800

// Amount Charges @Rs. 2.00 per unit : 1600.00

// Net Bill Amount : 1600.00

ANS:

void main() {

int customerId = 2001;

String customerName = 'TURAB';

int unitsConsumed = 800;

double chargeUpto199 = 1.20;

double charge200to399 = 1.50;

double charge400to599 = 1.80;

double charge600AndAbove = 2.00;

double billAmount = 0.0;

if (unitsConsumed <= 199) {

billAmount = unitsConsumed \* chargeUpto199;

} else if (unitsConsumed >= 200 && unitsConsumed < 400) {

billAmount = unitsConsumed \* charge200to399;

} else if (unitsConsumed >= 400 && unitsConsumed < 600) {

billAmount = unitsConsumed \* charge400to599;

} else {

billAmount = unitsConsumed \* charge600AndAbove;

}

print('Customer ID NO: $customerId');

print('Customer Name: $customerName');

print('Unit Consumed: $unitsConsumed');

print('Amount Charges @Rs. 2.00 per unit: ${billAmount.toStringAsFixed(2)}');

print('Net Bill Amount: ${billAmount.toStringAsFixed(2)}');

}

Q8: Create a marksheet using operators of at least 5 subjects and output should have Student Name, Student Roll Number, Class, Percentage, Grade Obtained etc.

// i.e: Percentage should be rounded upto 2 decimal places only.

ANS:

void main() {

String studentName = 'Taimoor';

int rollNumber = 2038;

String className = 'intermediate';

int subject1Marks = 75;

int subject2Marks = 78;

int subject3Marks = 81;

int subject4Marks = 65;

int subject5Marks = 68;

int totalSubjects = 5;

int maxMarksPerSubject = 100;

int totalMarksObtained = subject1Marks +

subject2Marks +

subject3Marks +

subject4Marks +

subject5Marks;

double percentage =

(totalMarksObtained / (totalSubjects \* maxMarksPerSubject)) \* 100;

String grade;

if (percentage >= 90) {

grade = 'A+';

} else if (percentage >= 80) {

grade = 'A';

} else if (percentage >= 70) {

grade = 'B';

} else if (percentage >= 60) {

grade = 'C';

} else if (percentage >= 50) {

grade = 'D';

} else {

grade = 'F';

}

print('Student Name: $studentName');

print('Roll Number: $rollNumber');

print('Class: $className');

print('Percentage: ${percentage.toStringAsFixed(2)}%');

print('Grade Obtained: $grade');

}

Q9: Check if the number is even or odd, If number is even then check if this is divisible by 5 or not & if number is odd then check if this is divisible by 7 or not.

ANS:

void main() {

int number = 18;

if (number % 2 == 0) {

print('$number is even.');

if (number % 5 == 0) {

print('$number is divisible by 5.');

} else {

print('$number is not divisible by 5.');

}

} else {

print('$number is odd.');

if (number % 7 == 0) {

print('$number is divisible by 7.');

} else {

print('$number is not divisible by 7.');

}

}

}

Q10: Write a program that takes three numbers from the user and prints the greatest number & lowest number.

ANS:

void main() {

num num1 = 75;

num num2 = 65;

num num3 = 55;

if(num1 > num2 && num1 > num3 ){

print("num1 is gretest than num2 and num3");

}

else if(num2 > num1 && num2 > num3 ){

print("num2 is gretest than num1 and num3");

}

else{

print("num3 is gretest than num1 and num2");

}

}

Q11: Write a program to calculate root of any number.

ANS:

void main() {

num sqrtNumber = 4;

num squareRoot = (sqrtNumber);

print('The square root of $sqrtNumber is $squareRoot');

}

//Q12: Wrie a program to convert

//Celsius to Fahrenheit .

//i.e: Temperature in degrees Fahrenheit (°F) = (Temperature in degrees Celsius (°C) \* 9/5) + 32

ANS:

void main() {

num tempCelsius =32;

num celciusTofehren = (tempCelsius\*9/5)+32;

print("the temperature in Celsius is $tempCelsius");

print("the temperature in fahrenheit $celciusTofehren");

}

***Name: Taimoor***

***Roll no.9278***

***Assignment no.1***