1) Ravi is a pension officer. Ravi's job is to collect the person's name,age and prepare a data which should be in a below format :

Enter your name: srividya

Enter your age: 28

Hello, srividya!

You are 28 years old.

You were born in the year 1995.

You are an adult.

Ravi wants to declares them as

Children if they are under 18 years of age,

Adults if they are between 18 to 65.

Remaining as senior citizens.

Assume you are ravi. How would you solve the problem?

Note: "You are a minor."

"You are an adult."

"You are a senior citizen." use these sentences in print statements appropriately.

PROGRAM:

using System;

class Task1

{

static void Main()

{

Console.Write("Enter your name: ");

string name = Console.ReadLine();

Console.Write("Enter your age: ");

int age = int.Parse(Console.ReadLine());

Console.WriteLine("Hello, "+name +"!");

Console.WriteLine("You are "+age+" years old.");

Console.WriteLine("You were born in the year "+(2024 - age)+".");

if (age < 18)

{

Console.WriteLine("You are a minor.");

}

else if (age >= 18 && age <= 65)

{

Console.WriteLine("You are an adult.");

}

else

{

Console.WriteLine("You are a senior citizen.");

}

}

}

2)Create a class InterviewProcess.Write a Java program that models an interview process with multiple rounds. The interview process consists of the following rounds: written test, group discussion, technical round, and HR round. The program should ask the candidate for their results at each stage and determine if they are eligible to proceed to the next round or if they should go home.

Sample Test Case:

Did you clear the written test? (yes/no): yes

You are eligible for the group discussion round

Did you pass the group discussion round? (yes/no): yes

You are eligible for the technical round

Did you pass the technical round? (yes/no): yes

Congrats! You are eligible for the HR round

Note: You must write "Sorry,You can go home" in else block.

PROGRAM:

using System;

class Task1{

static void Main(){

Console.Write("Did you clear the written test? (yes/no): ");

string test = Console.ReadLine();

if (test == "yes"){

Console.WriteLine("You are eligible for the group discussion round");

Console.Write("Did you pass the group discussion round? (yes/no): ");

string disc = Console.ReadLine();

if(disc=="yes"){

Console.WriteLine("You are eligible for the technical round");

Console.Write("Did you pass the technical round? (yes/no): ");

string tech = Console.ReadLine();

if(tech == "yes"){

Console.WriteLine("Congrats! You are eligible for the HR round");

}

else{

Console.WriteLine("Sorry,You can go home");

}

}

else{

Console.WriteLine("Sorry,You can go home");

}

}

else{

Console.WriteLine("Sorry,You can go home");

}

}

}

3)In a class, the teacher conducted an exam for all the students. Based on that exam, their ranks were decided like this

Marks greater than or equal to 90 and Marks less than or equal to 100 as 1st Rank,

Marks greater than or equal to 75 and Marks less than 90 as 2nd Rank,

Marks greater than or equal to 50 and Marks less than 75 as 3rd Rank,

Marks greater than or equal to 35 and Marks less than 50 as just passed,

Marks greater than or equal to 10 and Marks less than 35 as failed

Any Other Marks as "Invalid credentials. Please enter valid marks."

Sample Test Case:

Enter your marks: 75

You got 2nd rank.

Note: "Congratulations! You got 1st rank."

"You got 2nd rank."

"You got 3rd rank."

"You just passed."

"You failed."

"Invalid credentials. Please enter valid marks." use these sentences in print statements

has context menu

PROGRAM:

using System;

class Task3{

static void Main(string[] args){

Console.Write("Enter your marks: ");

int marks = Convert.ToInt32(Console.ReadLine());

if (marks >= 90 && marks <= 100){

Console.WriteLine("Congratulations! You got 1st rank.");

}

else if (marks >= 75 && marks < 90){

Console.WriteLine("You got 2nd rank.");

}

else if (marks >= 50 && marks < 75){

Console.WriteLine("You got 3rd rank.");

}

else if (marks >= 35 && marks < 50){

Console.WriteLine("You just passed.");

}

else if (marks >= 10 && marks < 35){

Console.WriteLine("You failed.");

}

else{

Console.WriteLine("Invalid credentials. Please enter valid marks.");

}

}

}

Output:

C:\Users\shyam\OneDrive\Desktop\cs\Day 4>Task3

Enter your marks: 20

You failed.

4)Write a Program that prompts the user for an integer and then prints out all the prime numbers up to that Integer.

Sample Test Case:

Enter the end of the range: 10

2 3 5 7

PROGRAM:

using System;

class Task4{

static void Main(){

Console.Write("Enter the end of the range: ");

int end = int.Parse(Console.ReadLine());

Console.Write("Prime numbers up to {0}: ", end);

for (int i = 2; i <= end; i++){

bool flag = true;

for (int j = 2; j < i; j++){

if (i % j == 0){

flag = false;

break;

}

}

if (flag){

Console.Write(i + " ");

}

}

}

}

//Output:

C:\Users\shyam\OneDrive\Desktop\cs\Day 4>Task4

Enter the end of the range: 53

Prime numbers up to 53: 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53

5) Write a program for the below requirements

\* calculate sum and product of the given number

\* if sum equals to product print it is a spy number and print the given number in reverse order

\* if sum and product not equal, print it is not a spy number.

Note : use only while loop

Sample Test Case : 1

123

sum of the given number is: 6

product of the given number is: 6

it is a spy number

Given number in reverse order: 321

Sample Test Case : 2

456

sum of the given number is: 15

product of the given number is: 120

it is not a spy number

Program:

using System;

class Task5{

static void Main(string[] args){

int num = int.Parse(Console.ReadLine());

int sum = 0, prod = 1, rev=0;

while(num !=0){

int temp = num%10;

num = num/10;

sum +=temp;

prod \*= temp;

rev = rev\*10 + temp;

}

Console.WriteLine("sum of the given number is: "+sum);

Console.WriteLine("product of the given number is: "+prod);

if (sum == prod){

Console.WriteLine("it is a spy number");

Console.WriteLine("Given number in reverse order: "+ rev);

}

else{

Console.WriteLine("it is not a spy number");

}

}

}

Output:

C:\Users\aryas\OneDrive\Desktop\cs\Day 4>Task5

123

sum of the given number is: 6

product of the given number is: 6

it is a spy number

Given number in reverse order: 321

6) Rani needs to create a Java program that operates a printing machine to produce a pyramid-shaped pattern using alphabetic characters. This program should take a parameter 'n' to determine the number of rows in the pyramid and then navigate the printing machine accordingly to achieve the desired pyramid pattern.

Sample Test Case:

4

A

A B

A B C

A B C D

Program:

Output:

7) Josh is a professional manga writer.He intends to add Easter eggs(Hidden surprises) in the story.To achieve that he needs to know the exact position of a certain word in a sentence.

Write a program to help Josh which takes the sentence and the word and displays the position.

Sample Test Case:

Enter the Sentence : Zror finds a sword called destroyer

Enter a word to find: sword

The word 'sword' is found at index 13 in the sentence.

Note:if the word is not found print:

The word 'sword' is not found in the sentence.

Program:

using System;

public class Program{

public static void Main(string[] args)

{

Console.Write("Enter the Sentence: ");

string sentence = Console.ReadLine();

Console.Write("Enter a word to find: ");

string word = Console.ReadLine();

int index = sentence.IndexOf(word);

if (index != -1){

Console.WriteLine("The word {0} is found at index {1} in the sentence.",word,index);

}

else{

Console.WriteLine("The word {0} is not found in the sentence.",word);

}

}

}

Output:

C:\Users\aryas\OneDrive\Desktop\cs\Day 4>Task7

Enter the Sentence: Shyam is a good boy in the class

Enter a word to find: good

The word good is found at index 11 in the sentence.