**Assignment - 3** **A Job Ready Bootcamp in C++, DSA and IOT MySirG**

**Decision Control Statements**

1. ***Write a program to check whether a given number is positive or non-positive.***

#include<stdio.h>>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

if(n>0)

printf("Number is positive");

if(n<=0)

printf("Nmuber is non positive");

return 0;

}

1. ***Write a program to check whether a given number is divisible by 5 or not***

#include<stdio.h>>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

if(n%5==0)

printf("Number is divisible");

else

printf("Nmuber is not divisible");

return 0;

}

***3. Write a program to check whether a given number is an even number or an odd***

***number.***

#include<stdio.h>>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

if(n%2==0)

printf("Number is an even");

else

printf("Nmuber is an odd");

return 0;

}

***4. Write a program to check whether a given number is an even number or an odd***

***number without using % operator.***

#include<stdio.h>>

int main()

{

int a,b;

printf("Enter two number");

scanf("%d%d",&a,&b);

if(a&&b)

printf("Number is an odd ");

else

printf("Nmuber is an even");

return 0;

}

5. Write a program to check whether a given number is a three-digit number or not.

***6. Write a program to print greater between two numbers. Print one number of both are***

***the same.***

#include<stdio.h>>

int main()

{

int a,b;

printf("Enter two numbers");

scanf("%d%d",&a,&b);

if(a>b)

printf("%d is larger number",a);

if(b>a)

printf("%d is larger number",b);

if(a==b)

printf("%d and %d are equals",a,b);

return 0;

}

***7. Write a program to check whether roots of a given quadratic equation are real &***

***distinct, real & equal or imaginary roots.***

***9. Write a program to find the greatest among three given numbers. Print number once***

***if the greatest number appears two or three times.***

***10. Write a program which takes the cost price and selling price of a product from the user. Now calculate and print profit or loss percentage.***

#include<stdio.h>

int main()

{

int CP,SP,p,l,pp,lp;

printf("Enter cost price & selling price");

scanf("%d%d",&CP,&SP);//cost price ,selling price

p=SP-CP;//profit

l=CP-SP;//loss

pp=(p\*100)/CP;//profit percentage

printf("profit percentage is=%d\n ",pp);

lp=(l\*100)/CP;//loss percentage

printf("loss percentage is=%d",lp);

return 0;

}

***11. Write a program to take marks of 5 subjects from the user. Assume marks are given***

***out of 100 and passing marks is 33. Now display whether the candidate passed the***

***examination or failed.***

#include<stdio.h>

int main()

{

int M,H,E,B,Ma;

printf("Enter 5 subjects marks");

scanf("%d%d%d%d%d",&M,&H,&E,&B,&Ma);

if(M>=33 && H>=33 && E>=33 && B>=33 && Ma>=33 )

printf("Pass");

else

printf("Fail");

return 0;

}

***12. Write a program to check whether a given alphabet is in uppercase or lowercase.***

#include<stdio.h>

int main()

{

char ch;

printf("Enter any character");

scanf("%c",&ch);

if(ch>='A' && ch<='Z')

printf("Alphabet is in uppercase \n");

else if(ch>='a' && ch<='z')

printf("Alphabet is in lowercase \n");

else

printf("Not an alphabet\n");

return 0;

}

***13. Write a program to check whether a given number is divisible by 3 and divisible by 2.***

***14. Write a program to check whether a given number is divisible by 7 or divisible by 3.***

***15. Write a program to check whether a given number is positive, negative or zero.***

#include<stdio.h>

int main()

{

int a;

printf("Enter a number");

scanf("%d",&a);

if(a>0)

printf("Number is positive");

else

{

if(a<0)

printf("Number is negative");

else

{

if(a==0)

printf("Number is zero");

}

}

}

***16. Write a program to check whether a given character is an alphabet (uppercase), an***

***alphabet (lower case), a digit or a special character.***

***17. Write a program which takes the length of the sides of a triangle as an input. Display***

***whether the triangle is valid or not.***

***18. Write a program which takes the month number as an input and display number of***

***days in that mont***