**Task 1**

**Objective:**

Write a C++ Menu driven program that allows a user to enter five numbers and then choose between findings the smallest, largest, sum or average. Use else if statement to determine what action to take.

**PROGRAMME CODE**

#include<iostream>

using namespace std;

int main ()

{

float a,b,c,d,e,sum,average;

int x;

cout<<"Enter five number"<<endl;

cout<<"\nEnter first number: ";

cin>>a;

cout<<"Enter second number: ";

cin>>b;

cout<<"Enter third number: ";

cin>>c;

cout<<"Enter fourth number: ";

cin>>d;

cout<<"Enter fifth number: ";

cin>>e;

cout<<"\nEnter 1 for smallest number\nEnter 2 for largest number\nEnter 3 for sum\nEnter 4 for average\n\nEnter number: ";

cin>>x;

if (x>=5)

{ cout<<"Invalid Number"<<endl;}

else if (x==1)

{ if ((a<b)&&(a<c)&&(a<d)&&(a<e))

cout<<"\nsmaller is a: "<<a<<endl;

else if ((b<a)&&(b<c)&&(b<d)&&(b<e))

cout<<"\nsmaller is b: "<<b<<endl;

else if ((c<a)&&(c<b)&&(c<d)&&(c<e))

cout<<"\nsmaller is c: "<<c<<endl;

else if ((d<a)&&(d<b)&&(d<c)&&(d<e))

cout<<"\nsmaller is d: "<<d<<endl;

else

cout<<"\nsmaller is e: "<<e<<endl;

}

else if (x==2)

{ if ((a>b)&&(a>c)&&(a>d)&&(a>e))

cout<<"\nlarger is a: "<<a<<endl;

else if ((b>a)&&(b>c)&&(b>d)&&(b>e))

cout<<"\nlarger is b: "<<b<<endl;

else if ((c>a)&&(c>b)&&(c>d)&&(c>e))

cout<<"\nlarger is c: "<<c<<endl;

else if ((d>a)&&(d>b)&&(d>c)&&(d>e))

cout<<"\nlarger is d: "<<d<<endl;

else

cout<<"\nlarger is e: "<<e<<endl;

}

else if (x==3)

{

sum=a+b+c+d+e;

cout<<"\nSum of five number is "<<sum<<endl;

}

else if (x==4)

{

average=float(a+b+c+d+e)/5;

cout<<"\nAverage of five number is "<<average<<endl;

}

system ("pause");

return 0;

}

**Task 2**

**Objective:**

Write a C++ Menu driven program that allows a user to enter five numbers and then choose between findings the smallest, largest, sum or average. using switch statement.

**PROGRAMME CODE**

#include<iostream>

using namespace std;

int main ()

{

float a,b,c,d,e,sum,average;

int num;

cout<<"Enter five number"<<endl;

cout<<"\nEnter first number: ";

cin>>a;

cout<<"Enter second number: ";

cin>>b;

cout<<"Enter third number: ";

cin>>c;

cout<<"Enter fourth number: ";

cin>>d;

cout<<"Enter fifth number: ";

cin>>e;

cout<<"\nEnter 1 for smallest number\nEnter 2 for largest number\nEnter 3 for sum\nEnter 4 for average\n\nEnter number: ";

cin>>num;

switch(num)

{

case 1:

{ if ((a<b)&&(a<c)&&(a<d)&&(a<e))

cout<<"\nsmaller is a: "<<a<<endl;

else if ((b<a)&&(b<c)&&(b<d)&&(b<e))

cout<<"\nsmaller is b: "<<b<<endl;

else if ((c<a)&&(c<b)&&(c<d)&&(c<e))

cout<<"\nsmaller is c: "<<c<<endl;

else if ((d<a)&&(d<b)&&(d<c)&&(d<e))

cout<<"\nsmaller is d: "<<d<<endl;

else

cout<<"\nsmaller is e: "<<e<<endl;

break;}

case 2:

{ if ((a>b)&&(a>c)&&(a>d)&&(a>e))

cout<<"\nlarger is a: "<<a<<endl;

else if ((b>a)&&(b>c)&&(b>d)&&(b>e))

cout<<"\nlarger is b: "<<b<<endl;

else if ((c>a)&&(c>b)&&(c>d)&&(c>e))

cout<<"\nlarger is c: "<<c<<endl;

else if ((d>a)&&(d>b)&&(d>c)&&(d>e))

cout<<"\nlarger is d: "<<d<<endl;

else

cout<<"\nlarger is e: "<<e<<endl;

break;}

case 3:

{sum=a+b+c+d+e;

cout<<"\nSum of five number is "<<sum<<endl;

break;}

case 4:

{average=float(a+b+c+d+e)/5;

cout<<"\nAverage of five number is "<<average<<endl;

break;}

default:

cout<<"Invalid Number"<<endl;

}

system ("pause");

return 0;

}

**Task 3**

**Objective:**

Write a program that takes marks as input from 1-100.Find the grade according to following condition and display output as follow

**A** marks are above and equal to 87

**B+**marks are between 80 and 86

**B**marks are between 72 and 79

**C+** marks are between 66 and 71

**C** marks are between 60 and 65

**D** marks are between 50 and 59

**F**below 50

**Output**

Enter marks: 85

Your Grade is B+

**PROGRAMME CODE**

#include<iostream>

using namespace std;

int main ()

{

int marks;

cout<<"Enter marks: ";

cin>>marks;

if (marks>=101)

cout<<"Invalid Number"<<endl;

else if ((marks>=87)&&(marks<=100))

cout<<"Your Grade is A"<<endl;

else if ((marks>=80)&&(marks<=86))

cout<<"Your Grade is B+"<<endl;

else if ((marks>=72)&&(marks<=79))

cout<<"Your Grade is B"<<endl;

else if ((marks>=66)&&(marks<=71))

cout<<"Your Grade is C+"<<endl;

else if ((marks>=60)&&(marks<=65))

cout<<"Your Grade is C"<<endl;

else if ((marks>=50)&&(marks<=59))

cout<<"Your Grade is D"<<endl;

else

cout<<"Your Grade is F"<<endl;

system ("pause");

return 0;

}