**Task 1:**

#include <iostream>

using namespace std;

class Age

{

private:

int current\_year;

int birth\_year;

public:

void input()

{

cout<<"Enter Current Year: ";

cin>>current\_year;

cout<<"Enter your year of birth: ";

cin>>birth\_year;

}

void show()

{

cout<<"Your Age is: "<<current\_year-birth\_year<<endl;

}

};

int main()

{

Age age;

age.input();

age.show();

return 0;

}

**Task 2:**

#include <iostream>

using namespace std;

int main()

{

cout << "One double quote: \"\nTwo double quotes: \"\"\nBackslash: \\";

return 0;

}

**Task 3:**

#include <iostream>

#define SIZE 20

using namespace std;

class Array

{

private:

int A[SIZE];

public:

void input()

{

for(int i=0;i<SIZE;i++)

cin>>A[i];

}

int L\_followed\_by\_S()

{

int counter=0;

for(int i=0;i<SIZE-1;i++)

{

if(A[i]>A[i+1])

counter++;

}

return counter;

}

};

int main()

{

Array A;

cout<<"Enter the Array of Integers: ";

A.input();

cout<<"Number of time a Larger number followed by a smaller one: "<<A.L\_followed\_by\_S();

return 0;

}

**Task 4:**

#include <iostream>

#define SIZE 20

using namespace std;

class Array

{

private:

int A[SIZE];

public:

void input()

{

for(int i=0;i<SIZE;i++)

cin>>A[i];

}

int L\_followed\_by\_S()

{

int counter=0;

for(int i=0;i<SIZE-1;i++)

{

if(A[i]>A[i+1])

counter++;

}

return counter;

}

};

int main()

{

Array A;

cout<<"Enter the Array of Integers: ";

A.input();

cout<<"Number of time a Larger number followed by a smaller one: "<<A.L\_followed\_by\_S();

return 0;

}

**Task 5:**

#include <iostream>

#include<cmath>

const int SIZE=5;

using namespace std;

class Array

{

private:

int A[SIZE];

public:

void input()

{

for(int i=0;i<SIZE;i++)

cin>>A[i];

}

void Bubblesort()

{

for(int i=0;i<SIZE;i++)

{

for(int a=0;a<SIZE-1;a++)

{

if(A[a]>A[a+1])

{

int temp=A[a];

A[a]=A[a+1];

A[a+1]=temp;

}

}

}

}

double Mean()

{

double mean;

int half=SIZE/2;

if(SIZE%2)

{

mean=A[half];

}

else

{

mean=(A[half]+A[half-1])/2;

}

return mean;

}

double Deviation()

{

double mean= this->Mean();

double dev,sum=0;

for(int i=0;i<SIZE;i++)

{

sum+=pow((A[i]-mean),2);

}

dev=sqrt(sum)/(SIZE-1);

return dev;

}

};

int main()

{

Array A;

cout<<"Enter Array:\n";

A.input();

A.Bubblesort();

cout<<"Mean = "<<A.Mean()<<endl;

cout<<"Standard Deviation = "<<A.Deviation();

return 0;

}

**Task 6:**

#include <iostream>

using namespace std;

int main()

{

int Num;

cout<<"Enter a 5 digits Number: ";

cin>>Num;

if(Num%10==Num/10000)

{

if((Num%100)/10==(Num/1000)%10)

cout<<"This is a Palindrome.\n";

else

cout<<"This is Not a Palindrome.\n";

}

else

cout<<"This is Not a Palindrome.\n";

return 0;

}