**PROGRAM:**

#include<iostream>

using namespace std;

float a[100];

int size;

class sort

{

public:

int accept();

void bubble\_sort();

void selection\_sort();

int display();

void top\_five();

};

int sort::accept()

{

cout<<"\nenter the total number of first year students\n";

cin>>size;

cout<<"\nenter the percentage of students\n";

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

{

cin>>a[i];

}

}

void sort::bubble\_sort()

{

int i,j;

float temp;

cout<<"\nBUBBLE SORTING \n";

for(i=0;i<size;i++)

{

for(j=0;j<size-1;j++)

{

if(a[j+1]<a[j])

{

temp=a[j+1];

a[j+1]=a[j];

a[j]=temp;

}

}

}

}

void sort::selection\_sort()

{

int i,j;

float temp;

cout<<"\nSELECTION SORTING\n";

for(i=0;i<size;i++)

{

for(j=0;j<size;j++)

{

if(a[i]<a[j])

{

temp=a[j];

a[j]=a[i];

a[i]=temp;

}

}

}

}

int sort::display()

{

cout<<"\nthe percentage of students in ascending order are \n";

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

cout<<a[i]<<endl;

}

void sort::top\_five()

{

cout<<"\nTHE TOP FIVE STUDENTS OF FIRST YEAR ARE\n";

int i,j;

float top[5];

for(i=0,j=size-1;i<5;i++,j--)

{

top[i]=a[j];

}

for(i=0;i<5;i++)

cout<<top[i]<<endl;

}

int main()

{

char ch,choice,c;

sort obj;

do

{

obj.accept();

do

{

cout<<"\npress 1 for bubble sorting\npress 2 for selection sorting\npress 3 for displaying top five student's percentage\n";

cin>>ch;

switch(ch)

{

case '1':obj.bubble\_sort();obj.display();break;

case '2':obj.selection\_sort();obj.display();break;

case '3':obj.top\_five();break;

default:cout<<"\nsorry..try again";

}

cout<<"\ndo you want to try again?(y/n)\n";

cin>>choice;

}while(choice=='y'|| choice=='Y');

cout<<"\ndo you want to enter new percentages?(y/n)\n";

cin>>c;

}while(c=='y'|| c=='Y');

return 0;

}

**OUTPUT:**

enter the total number of first year students

8

enter the percentage of students

100

66

55

44.4

77.7

88.4

99.9

72.2

press 1 for bubble sorting

press 2 for selection sorting

press 3 for displaying top five student's percentage

1

BUBBLE SORTING

the percentage of students in ascending order are

44.4

55

66

72.2

77.7

88.4

99.9

100

do you want to try again?(y/n)

y

press 1 for bubble sorting

press 2 for selection sorting

press 3 for displaying top five student's percentage

2

SELECTION SORTING

the percentage of students in ascending order are

44.4

55

66

72.2

77.7

88.4

99.9

100

do you want to try again?(y/n)

y

press 1 for bubble sorting

press 2 for selection sorting

press 3 for displaying top five student's percentage

3

THE TOP FIVE STUDENTS OF FIRST YEAR ARE

100

99.9

88.4

77.7

72.2

do you want to try again?(y/n)

n

do you want to enter new percentages?(y/n)

n