**PROGRAM:**

#include<iostream>

using namespace std;

float a[100];

int size;

class sort

{

public:

int accept();

int quick\_sort(int,int);

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];

}

}

int sort::quick\_sort(int low,int high)

{

int i,j,pivot;

float temp;

if(low<high)

{

pivot=low;

i=low;

j=high;

while(i<j)

{

while(a[i]<=a[pivot]&&i<=high)

i++;

while(a[j]>a[pivot]&&j>=low)

j--;

if(i<j)

{

temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

temp=a[j];

a[j]=a[pivot];

a[pivot]=temp;

quick\_sort(low,j-1);

quick\_sort(j+1,high);

}

}

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()

{

sort obj;

obj.accept();

obj.quick\_sort(0,size-1);

obj.display();

obj.top\_five();

}

**OUTPUT:**

enter the total number of first year students

10

enter the percentage of students

44.4

66

22.2

99

98

76

67

56.5

77.3

49.9

the percentage of students in ascending order are

22.2

44.4

49.9

56.5

66

67

76

77.3

98

99

THE TOP FIVE STUDENTS OF FIRST YEAR ARE

99

98

77.3

76

67