Team 10

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**1.WAP to print subarray between given range**.

#include<iostream>

using namespace std;

int main()

{

int Findex=3,Lindex=8;

cout<<"Given Array :"<<endl;

int arr[]={10,12,20,30,25,40,32,31,35,50,60};

int n=(sizeof(arr)/sizeof(arr[0]));

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

{

cout<<arr[i]<<" ";

}

cout<<endl;

cout<<"Print subarray between 3 and 8 indexes :"<<endl;

//cin>>Findex>>Lindex;

for(int j=Findex;j<=Lindex;j++)

{

cout<<arr[j]<<" ";

}

return 0;

}

**2.WAP to Split the Given Array in Two different Arrays:**

#include<iostream>

using namespace std;

int main()

{

int arr1[30],arr2[30],low,high;

int arr[]={1,2,3,4,5,6,7,8,9,10};

int n=(sizeof(arr)/sizeof(arr[0]));

int mid=n/2;

cout<<"Given Array is :"<<endl;

for(int j=0;j<n;j++)

{

cout<<arr[j]<<" ";

}

cout<<endl;

cout<<"Spilt the Given Array in two Differnt array :"<<endl;

cout<<"First Array :"<<endl;

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

{

arr1[i]=arr[i];

cout<<arr1[i]<<" ";

}

cout<<endl;

cout<<"Second Array :"<<endl;

for(int k=mid;k<n;k++)

{

arr2[k]=arr[k];

cout<<arr2[k]<<" ";

}

return 0;

}

**3.Write a program to print Circular Array rotation**.

#include<iostream>

using namespace std;

int main()

{

int arr[]={1,2,3,4,5,6,7,8},i,j;

int n=(sizeof(arr)/sizeof(arr[0]));

cout<<"Given Array is :"<<endl;

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

{

cout<<arr[i]<<" ";

}

cout<<endl;

cout<<"Circulat rotation of Array :"<<endl;

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

{

int temp=arr[n-1];

for(i=n-1;i>0;i--)

{

arr[i]=arr[i-1];

//cout<<arr[i]<<" ";

}

arr[0]=temp;

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

{

cout<<arr[i]<<" ";

}

cout<<endl;

}

return 0;

}

**4.WAP to print all pairs on an integer array whose sum is equal to given.**

#include<iostream>

using namespace std;

int main()

{

int arr[]={1,2,3,4,5,6,7,8,9,10},i,j;

int n=(sizeof(arr)/sizeof(arr[0]));

cout<<"Given Array is :"<<endl;

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

{

cout<<arr[i]<<" ";

}

cout<<endl;

cout<<"List the pair from the array whose sum is 6"<<endl;

for(i=0;i<n-1;i++)

{

for(j=(i+1);j<n;j++)

{

if((arr[i]+arr[j])==6)

cout<<"("<<arr[i]<<","<<arr[j]<<")"<<" ";

}

}

cout<<endl;

cout<<"List the pair from the array whose sum is 7"<<endl;

for(i=0;i<n-1;i++)

{

for(j=i+1;j<n;j++)

{

if((arr[i]+arr[j])==7)

cout<<"("<<arr[i]<<","<<arr[j]<<")"<<" ";

}

}

return 0;

}

**5.print substring of both the string.**

#include<iostream>

using namespace std;

string SubString(string X, string Y)

{

int m = X.length();

int n = Y.length();

int result = 0;

int end;

int len[2][n];

int currR = 0;

for (int i = 0; i <= m; i++) {

for (int j = 0; j <= n; j++) {

if (i == 0 || j == 0) {

len[currR][j] = 0;

}

else if (X[i - 1] == Y[j - 1]) {

len[currR][j] = len[1 - currR][j - 1] + 1;

if (len[currR][j] > result) {

result = len[currR][j];

end = i - 1;

}

}

else

{

len[currR][j] = 0;

}

}

currR= 1 - currR;

}

if (result == 0) {

return "-1";

}

return X.substr(end - result + 1, result);

}

int main()

{

string a = "DANCING";

string b = "SINGING";

cout<<SubString(a,b);

return 0;

}

**6. WAP TO TO ENTER STUDENTS DETAILS Sort the 10 students details roll number wise**

#include<iostream>

#include<cstring>

using namespace std;

class Date

{

int d,m,y;

public:

void get\_date()

{

cout<<"\nEnter the date as DAY, MONTH, YEAR "<<endl;

cout<<"Day:";

cin>>d;

cout<<"Month:";

cin>>m;

cout<<"Year:";

cin>>y;

}

void display()

{

cout<<"\nDate of birth is "<<endl;

cout<<"\nDay : "<<d<<"\tMonth : "<<m<<"\tYear : "<<y<<endl;

}

};

class Students

{

int roll\_no;

Date dob;

float total\_marks;

string name;

public:

void get\_data(Students \*)

{

cout<<"\nEnter the details of student :"<<endl;

cout<<"\nEnter the Name : ";

cin>>name;

cout<<"\nEnter Roll No : ";

cin>>roll\_no;

cout<<"\nEnter Total Marks : "<<endl;

cin>>total\_marks;

dob.get\_date();

}

void display(Students \*)

{

cout<<"\nThe student details are as follow :"<<endl;

cout<<"\nName : "<<name<<"\tRoll No. : "<<roll\_no<<"\tTotal marks : "<<total\_marks<<endl;

dob.display();

cout<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;

}

static void Sortbyroll(Students \*ptr, int n);

};

void Students::Sortbyroll(Students \*ptr, int n)

{

Students temp;

  for(int i=0;i<n-1;i++)

{

  for(int j=i+1;j<n;j++)

{

if(ptr[i].roll\_no > ptr[j].roll\_no)

{

temp = ptr[i];

ptr[i] = ptr[j];

ptr[j] = temp;

}

}

}

}

int main()

{

int n;

cout<<"\nEnter the no. of students : ";

cin>>n;

Students \*ptr = new Students[n];

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

{

ptr[i].get\_data(ptr);

}

cout<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;

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

{

ptr[i].display(ptr);

}

cout<<"\nThe sorted data is : ";

Students :: Sortbyroll(ptr,n);

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

ptr[i].display(ptr);

cout<<endl;

delete []ptr;

return 0;

}

OS Assignment 1: Q1

|  |
| --- |
| #include <iostream.h>  #include <conio.h>  #include <string.h>  #include <stdio.h>  struct student  {  char name[20];  int regno;  int cet;  int math;  };  void swap (student &x,student &y)  {  student temp;  temp=x;  x=y;  y=temp;  }    void sortmarks (student x[],int n)  {  for (int i=0;i<n-1;i++)  for (int j=i+1;j<n;j++)  if (x[i].cet<x[j].cet)  swap (x[i],x[j]);  else if (x[i].cet==x[j].cet && x[i].math<x[j].math)  swap (x[i],x[j]);  }    void sortname(student x[],int n)  {  for (int i=0;i<n-1;i++)  for (int j=i+1;j<n;j++)  if (strcmpi(x[i].name,x[j].name)>0)  swap(x[i],x[j]);  }    void display (student x[],int n)  {  cout <<endl<<"Sr. no "<<"\t"<<"Name"<<"\t"<<"CET"<<"\t"<<"Maths"<<endl;  for (int i=0;i<n;i++)  cout <<endl<<i<<"\t"<<x[i].name<<"\t"<<x[i].cet<<"\t"<<x[i].math;  }    void main()  {  student s[100];  int n;  cout <<"Enter the no. of students ";  cin>>n;  cout <<endl<<"Student information";  for (int i=0;i<n;i++)  {  cout <<endl<<"Enter name : ";  gets(s[i].name);  cout <<endl<<"Enter reg no : ";  cin>>s[i].regno;  cout <<endl<<"Enter CET marks : ";  cin>>s[i].cet;  cout <<endl<<"Enter Maths marks : ";  cin>>s[i].math;  }  cout <<endl<<"Merit list";  sortmarks (s,n);  display (s,n);  cout <<endl<<"List according to name";  sortname(s,n);  display(s,n);  getch();  } |
| Output | **Enter the no. of students 5**    Student information  **Enter name : She**  **Enter reg no : 2134**  **Enter CET marks : 173**  **Enter Maths marks : 88**    **Enter name : Sush**  **Enter reg no : 1097**  **Enter CET marks : 190**  **Enter Maths marks : 94**    **Enter name : Son**  **Enter reg no : 2341**  **Enter CET marks : 189**  **Enter Maths marks : 92**    **Enter name : Sam**  **Enter reg no : 6389**  **Enter CET marks : 193**  **Enter Maths marks : 96**    **Enter name : john**  **Enter reg no : 4832**  **Enter CET marks : 150**  **Enter Maths marks : 78**    Merit list  Sr.no   Name     CET       Maths   0        Sam       193        96   1        Srus       190        94   2        Son        189        92   3        She        173        88   4        john       150        78    List according to name  Sr.no    Name    CET      Maths   0         john        150         78   1         Sam         193         96   2         She         173         88   3         Son         189         92   4         Sush        190          94 |