**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <iostream.h>**

**char prime( int N )**

**{**

**char is\_prime = 't' ;**

**if(N == 1) is\_prime = 'f' ;**

**for(int i = 2 ; i <= N/2 ; i++)**

**{**

**if(N%i == 0)**

**{**

**is\_prime = 'f' ;**

**break ;**

**}**

**}**

**return is\_prime ;**

**}**

**void main()**

**{**

**int primes = 0 , x = 1 ;**

**char is\_a\_prime ;**

**while(primes <= 20)**

**{**

**is\_a\_prime = prime(x) ;**

**if(is\_a\_prime == 't')**

**{**

**cout << x << “ ,” ;**

**primes ++ ;**

**}**

**x ++ ;**

**}**

**}**

**// Output :**

**// 2 , 3 , 5 , 7 , ... , 73 ,**

**#include <string.h>**

**#include <iostream.h>**

**char palindrome( char S[] )**

**{**

**int length = strlen(S) - 1 ;**

**char is\_pal = 'y' ;**

**int i = 0 ;**

**int j = length ;**

**for( ; i < length/2 ; i ++ , j--)**

**{**

**if(S[i] != S[j])**

**{**

**is\_pal = 'n' ;**

**break ;**

**}**

**}**

**return is\_pal ;**

**}**

**void main()**

**{**

**char s[20] ;**

**cout << "Enter the String :>" ; gets(s);**

**char is\_a\_pal = palindrome(s) ;**

**if(is\_a\_pal == 'y')**

**cout << "It is a Palindrome." ;**

**else**

**cout << "It isn't a Palindrome." ;**

**}**

**// Output :**

**// Enter the String :>RacecaR ... It is a Palindrome.**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <iostream.h>**

**unsigned int Count( int L[] , int N = 10 )**

**{**

**int x = 0 ;**

**for(int i = 0 ; i < N ; i++)**

**if(L[i]%7 == 0)**

**x++ ;**

**return x ;**

**}**

**void main()**

**{**

**int length ;**

**cout << "Length of the list :>" ;**

**cin >> length ;**

**int x[length] ;**

**for(int i = 0 ; i < length ; i++)**

**{**

**cout << "Enter element " << i << " :>" ;**

**cin >> x[i] ;**

**}**

**cout << Count(x , length)**

**<< " multiples of Seven are present." ;**

**}**

**// Output :**

**// Length of the list :>3**

**// Enter element 0 :>7**

**// Enter element 1 :>14**

**// Enter element 2 :>50**

**// 2 multiples of Seven are present.**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include<iostream.h>**

**int Diagonal( int A[10][10] , int Length )**

**{**

**int Sum = 0 ;**

**for( int i = 0 ; i < Length ; i ++ )**

**{**

**for( int j = 0 ; j < Length ; j ++ )**

**if( i == (Length - j - 1) || i == j )**

**{**

**cout << A[i][j] << " " ;**

**Sum += A[i][j] ;**

**}**

**else cout << " " ;**

**cout << endl ;**

**}**

**return Sum ;**

**}**

**void main()**

**{**

**int A[10][10] , Length , i , j ;**

**cout << "Enter size of Square Array :>" ; cin >> Length ;**

**for( i = 0 ; i < Length ; i ++ )**

**{**

**cout << "Row " << i << endl ;**

**for( j = 0 ; j < Length ; j ++ )**

**{**

**cout << "Enter element " << j << " :>" ; cin >> A[i][j] ;**

**}**

**}**

**cout << "Array :" << endl ;**

**for( i = 0 ; i < Length ; i ++ )**

**{**

**for( j = 0 ; j < Length ; j ++ ) cout << A[i][j] << " " ;**

**cout << endl ;**

**}**

**int Sum = Diagonal(A , Length) ;**

**cout << "Sum of elements in diagonals : " << Sum ;**

**}**

**// Output :**

**// Enter size of Square Array :>3**

**// Row 0**

**// Enter element 0 :>1**

**// Enter element 1 :>2**

**// Enter element 2 :>3**

**// Row 1**

**// Enter element 0 :>4**

**// Enter element 1 :>5**

**// Enter element 2 :>6**

**// Row 2**

**// Enter element 0 :>7**

**// Enter element 1 :>8**

**// Enter element 2 :>9**

**// Array :**

**// 1 2 3**

**// 4 5 6**

**// 7 8 9**

**// 1 3**

**// 5**

**// 7 9**

**// Sum of elements in diagonals : 25**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <iostream.h>**

**struct TIME**

**{**

**int hh , mm , ss ;**

**} ;**

**TIME ADD( TIME A , TIME B )**

**{**

**TIME C ;**

**C.ss = A.ss + B.ss ;**

**C.mm = A.mm + B.mm + C.ss/60 ;**

**C.hh = A.hh + B.hh + C.mm/60 ;**

**C.ss %= 60 ;**

**C.mm %= 60 ;**

**return C ;**

**}**

**TIME GREATER( TIME A , TIME B )**

**{**

**if( A.hh == B.hh )**

**{**

**if( A.mm == B.mm )**

**{**

**if( A.ss == B.ss )**

**{**

**cout << "Both are equal, Time : " ;**

**return A ;**

**}**

**return A.ss > B.ss ? A : B ;**

**}**

**return A.mm > B.mm ? A : B ;**

**}**

**return A.hh > B.hh ? A : B ;**

**}**

**void main()**

**{**

**TIME X , Y , Z ;**

**cout << "Input Time 1 :> " ; cin >> X.hh >> X.mm >> X.ss ;**

**cout << "Input Time 2 :> " ; cin >> Y.hh >> Y.mm >> Y.ss ;**

**Z = ADD(X , Y) ;**

**cout << "Time 1 : " << X.hh << " h " << X.mm << " m " << X.ss << " s." << endl ;**

**cout << "Time 2 : " << Y.hh << " h " << Y.mm << " m " << Y.ss << " s." << endl ;**

**cout << "Total : " << Z.hh << " h " << Z.mm << " m " << Z.ss << " s." << endl ;**

**Z = GREATER(X , Y) ;**

**cout << "Greater Time : " << Z.hh << " h "<< Z.mm << " m "<< Z.ss << " s." ;**

**}**

**// Output :**

**// Input Time 1 :> 2 50 35**

**// Input Time 2 :> 3 40 30**

**// Time 1 : 2 h 50 m 35 s.**

**// Time 2 : 3 h 40 m 30 s.**

**// Total : 6 h 31 m 5 s.**

**// Greater Time : 3 h 40 m 30 s**

**#include <iostream.h>**

**class Aeroplane**

**{**

**int Flight\_no ;**

**char Destination[20] ;**

**float Distance , Fuel ;**

**void CALFUEL()**

**{**

**if (Distance <= 1000) Fuel = 500 ;**

**else if (Distance <= 2000) Fuel = 1100 ;**

**else if (Distance > 2000) Fuel = 2200 ;**

**}**

**public :**

**void FEEDINFO()**

**{**

**cout << "Input Flight Details\n" ;**

**cout << "Enter Flight Number :>" ;**

**cin >> Flight\_no ;**

**cout << "Enter Destination :>" ;**

**cin >> Destination ;**

**cout << "Enter Distance :>" ;**

**cin >> Distance ;**

**CALFUEL() ;**

**}**

**void SHOWINFO()**

**{**

**cout << "\n-Flight Details-" ;**

**cout << "\nFlight Number : " << Flight\_no ;**

**cout << "\nDestination : " << Destination ;**

**cout << "\nDistance : " << Distance ;**

**cout << "\nFuel : " << Fuel ;**

**}**

**};**

**void main()**

**{**

**Aeroplane X ; X.FEEDINFO() ; X.SHOWINFO() ;**

**}**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <string.h>**

**#include <iostream.h>**

**class Garment**

**{**

**char GCode[20] , GType[20] , GFabric[20] ;**

**int GSize ;**

**float GPrice ;**

**void Assign()**

**{**

**float redu ;**

**if ( strcmpi(GFabric,"Cotton") == 0 )**

**redu = 0 ;**

**else**

**redu = 0.1 ;**

**if ( strcmpi(GType ,"Trouser") == 0 )**

**GPrice = 1300 ;**

**if ( strcmpi(GType ,"Shirt" ) == 0 )**

**GPrice = 1100 ;**

**GPrice -= redu\*GPrice ;**

**}**

**public :**

**void Input()**

**{**

**cout << "Input Garment Details\n" ;**

**cout << "Enter GCode :>" ; cin >> GCode ;**

**cout << "Enter GType :>" ; cin >> GType ;**

**cout << "Enter GSize :>" ; cin >> GSize ;**

**cout << "Enter GFabric :>" ; cin >> GFabric ;**

**Assign() ;**

**}**

**void Display()**

**{**

**cout << "-Garment Details-" ;**

**cout << "\nGCode : " << GCode ;**

**cout << "\nGType : " << GType ;**

**cout << "\nGSize : " << GSize ;**

**cout << "\nGFabric : " << GFabric ;**

**cout << "\nGPrice : " << GPrice ;**

**}**

**};**

**void main()**

**{**

**Garment X ;**

**X.Input() ;**

**X.Display() ;**

**}**

**// Output :**

**// Input Garment Details**

**// Enter GCode :>10101**

**// Enter GType :>Shirt**

**// Enter GSize :>40**

**// Enter GFabric :>Cotton**

**// -Garment Details-**

**// GCode : 10101**

**// GType : Shirt**

**// GSize : 40**

**// GFabric : Cotton**

**// GPrice : 1100**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <iostream.h>**

**class Distance**

**{**

**int feet ;**

**float inches ;**

**public :**

**void set( int A , float B )**

**{**

**feet = A ; inches = B ;**

**while( inches >= 12 )**

**{**

**feet += 1 ;**

**inches -= 12 ;**

**}**

**}**

**void disp()**

**{**

**cout << feet << " Feet, " << inches << " Inches." ;**

**cout << endl ;**

**}**

**Distance add( Distance A )**

**{**

**Distance B ;**

**B.set(A.feet+feet , A.inches+inches) ;**

**return B ;**

**}**

**};**

**void main()**

**{**

**Distance X , Y , Z ;**

**int Feet\_temp ;**

**float Inch\_temp ;**

**cout << "Input First Distance. \n" ;**

**cout << "Enter Feet :>" ; cin >> Feet\_temp ;**

**cout << "Enter Inches :>" ; cin >> Inch\_temp ;**

**X.set(Feet\_temp,Inch\_temp);**

**cout << "Input Second Distance.\n" ;**

**cout << "Enter Feet :>" ; cin >> Feet\_temp ;**

**cout << "Enter Inches :>" ; cin >> Inch\_temp ;**

**Y.set(Feet\_temp,Inch\_temp);**

**Z = X.add(Y) ;**

**cout << "- Distance 1 : " ; X.disp() ;**

**cout << "- Distance 2 : " ; Y.disp() ;**

**cout << "- Distance 3 : " ; Z.disp() ;**

**}**

**// Output :**

**// Input First Distance.**

**// Enter Feet :>20**

**// Enter Inches :>8**

**// Input Second Distance.**

**// Enter Feet :>18**

**// Enter Inches :>9**

**// - Distance 1 : 20 Feet, 8 Inches.**

**// - Distance 2 : 18 Feet, 9 Inches.**

**// - Distance 3 : 39 Feet, 5 Inches.**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <string.h>**

**#include <iostream.h>**

**class Candidate**

**{**

**long RNo ;**

**float Score ;**

**char Name[20] , Remarks[20] ;**

**void AssignRem()**

**{**

**if (Score >= 50)**

**strcpy( Remarks , "Selected " ) ;**

**else**

**strcpy( Remarks , "Not Selected" ) ;**

**}**

**public :**

**void Enter()**

**{**

**cout << "Enter Candidate Rollno. :>" ;**

**cin >> RNo ;**

**cout << "Enter Candidate Name :>" ;**

**cin >> Name ;**

**cout << "Enter Candidate Score :>" ;**

**cin >> Score ;**

**AssignRem() ;**

**}**

**void Display()**

**{**

**cout << "\nCandidate Name : " << Name ;**

**cout << "\nCandidate Rollno. : " << RNo ;**

**cout << "\nCandidate Remarks : " << Remarks ;**

**cout << "\nCandidate Score : " << Score ;**

**}**

**float Return\_Score()**

**{**

**return Score ;**

**}**

**char\* Return\_Remarks()**

**{**

**return Remarks ;**

**}**

**char\* Return\_Name()**

**{**

**return Name ;**

**}**

**};**

**void main()**

**{**

**char Search\_Name[20];**

**int i , Size = 1 , Found = 0 ;**

**Candidate X1 , X2 , X3 , X4 , X5 ;**

**Candidate X[] = { X1 , X2 , X3 , X4 , X5 } ;**

**for ( i = 0 ; i < Size ; i++)**

**{**

**cout << "Input Candidate " << i + 1 << " Details.\n" ;**

**X[i].Enter() ;**

**}**

**for ( i = 0 ; i < Size ; i++)**

**{**

**cout << "\nCandidate " << i + 1 << " Details." ;**

**X[i].Display();**

**}**

**cout << "\n -Selected Candidates- \n " ;**

**for ( i = 0 ; i < Size ; i++)**

**{**

**if ( strcmpi(X[0].Return\_Remarks() , "Selected") )**

**X[i].Display();**

**}**

**cout << "\n\nInput Candidate's Name \n:>" ;**

**cin >> Search\_Name ;**

**for ( i = 0 ; i < Size ; i++)**

**{**

**if ( strcmpi(X[0].Return\_Name() , Search\_Name) == 0 )**

**{**

**cout << "\nFound Candidate.\n" ;**

**X[i].Display() ;**

**Found = 1 ;**

**}**

**}**

**if( !Found ) cout << "\nNo Candidate was found with that name." ;**

**}**

**// Output :**

**// Input Candidate 1 Details.**

**// Enter Candidate Rollno. :>911**

**// Enter Candidate Name :>Apple**

**// Enter Candidate Score :>420**

**//**

**// Candidate 1 Details.**

**// Candidate Name : Apple**

**// Candidate Rollno. : 911**

**// Candidate Remarks : Selected**

**// Candidate Score : 420**

**//**

**// -Selected Candidates-**

**// Candidate Name : Apple**

**// Candidate Rollno. : 911**

**// Candidate Remarks : Selected**

**// Candidate Score : 420**

**//**

**// Input Candidate's Name :>Apple**

**// Found Candidate.**

**// Candidate Name : Apple**

**// Candidate Rollno. : 911**

**// Candidate Remarks : Selected**

**// Candidate Score : 420**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <string.h>**

**#include <iostream.h>**

**class outfit**

**{**

**char O\_Type[20] , O\_Code[20] ;**

**int O\_Size ;**

**float O\_Price ;**

**void int\_price()**

**{**

**float redu ;**

**if ( strcmpi(O\_Fabric , "Denim") )**

**redu = 0 ;**

**else**

**redu = 0.25 ;**

**if ( strcmpi(O\_Type , "Trouser") )**

**O\_Price = 1500 ;**

**if ( strcmpi(O\_Type , "Jacket" ) )**

**O\_Price = 2500 ;**

**O\_Price -= redu\*O\_Price ;**

**}**

**public :**

**char O\_Fabric[20] ;**

**outfit()**

**{**

**O\_Size = O\_Price = 0 ;**

**char\* X[3] = { O\_Type , O\_Fabric , O\_Code } ;**

**for (int i = 0 ; i < 3 ; i++)**

**strcpy(X[i] , "Not Inetialised") ;**

**}**

**void Input()**

**{**

**cout << "Enter Outfit Code :>" ; cin >> O\_Code ;**

**cout << "Enter Outfit Type :>" ; cin >> O\_Type ;**

**cout << "Enter Outfit Size :>" ; cin >> O\_Size ;**

**cout << "Enter Outfit Fabric :>" ; cin >> O\_Fabric ;**

**int\_price() ;**

**}**

**void Display()**

**{**

**cout << "\nOutfit Code : " << O\_Code ;**

**cout << "\nOutfit Type : " << O\_Type ;**

**cout << "\nOutfit Size : " << O\_Size ;**

**cout << "\nOutfit Fabric : " << O\_Fabric ;**

**cout << "\nOutfit Price : " << O\_Price ;**

**}**

**};**

**void main()**

**{**

**int i , Size = 1 ;**

**outfit X1 , X2 , X3 , X4 , X5 ;**

**outfit X[] = { X1 , X2 , X3 , X4 , X5 } ;**

**for( i = 0 ; i < Size ; i++)**

**{**

**cout << "Enter Oufit " << i + 1 << " Details.\n" ;**

**X[i].Input() ;**

**}**

**for( i = 0 ; i < Size ; i++)**

**{**

**cout << " \n\nOutfit " << i + 1 << " Details. " ;**

**X[i].Display() ;**

**}**

**}**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <iostream>**

**class Publication**

**{**

**char Title[20] ;**

**float Price ;**

**public :**

**void Get\_Data()**

**{**

**cout << "Input Publication Details. \n" ;**

**cout << "Enter Title :>" ; cin >> Title ;**

**cout << "Enter Price :>" ; cin >> Price ;**

**}**

**void Put\_Data()**

**{**

**cout << "Publication Details.\n" ;**

**cout << "Title : " << Title << endl ;**

**cout << "Price : " << Price << endl ;**

**}**

**} ;**

**class Book : public Publication**

**{**

**int Page\_Count ;**

**} ;**

**class Tape : public Publication**

**{**

**float Playing\_Time ;**

**} ;**

**void main()**

**{**

**Book B ; Tape T ;**

**cout << "Enter Book details :\n" ; B.Get\_Data() ;**

**cout << "Enter Tape details :\n" ; T.Get\_Data() ;**

**cout << " - Book details - \n" ; B.Put\_Data() ;**

**cout << " - Tape details - \n" ; T.Put\_Data() ;**

**}**

**// Output :**

**// Enter Book details :**

**// Input Publication Details.**

**// Enter Title :>Apple**

**// Enter Price :>420**

**// Enter Tape details :**

**// Input Publication Details.**

**// Enter Title :>Banana**

**// Enter Price :>911**

**// - Book details -**

**// Publication Details.**

**// Title : Apple**

**// Price : 420**

**// - Tape details -**

**// Publication Details.**

**// Title : Banana**

**// Price : 911**

**// Name : Chinmay Roll : 16**

**// Class : XII D**

**#include <string.h>**

**#include <iostream.h>**

**char \*Subjects[] = {**

**"English " ,**

**"Math " ,**

**"Physics " ,**

**"Chemistry" ,**

**"Computers"**

**} ;**

**class STUDENT**

**{**

**char Name[20] ;**

**unsigned int RollNo ;**

**protected :**

**unsigned int Class ;**

**public :**

**STUDENT()**

**{**

**strcpy(Name , "Not Assigned") ;**

**RollNo = Class = 0 ;**

**}**

**void Input()**

**{**

**cout << "Input Student Details. \n" ;**

**cout << "Enter Name :>" ; cin >> Name ;**

**cout << "Enter Class :>" ; cin >> Class ;**

**cout << "Enter RollNo :>" ; cin >> RollNo ;**

**}**

**void Display()**

**{**

**cout << "Student Details. \n" ;**

**cout << "Name : " << Name ;**

**cout << "Class : " << Class ;**

**cout << "RollNo : " << RollNo ;**

**}**

**} ;**

**class TEST**

**{**

**float English , Math ,**

**Physics , Chemistry ,**

**ComputerScience ;**

**float \* Subject[5] = { &English , &Math ,**

**&Physics , &Chemistry ,**

**&ComputerScience } ;**

**void Calculate\_Total()**

**{**

**for ( int i = 0 ; i < 5 ; i++ ) Total\_Marks += \*Subject[i] ;**

**}**

**protected :**

**float Total\_Marks ;**

**public :**

**Test()**

**{**

**Total\_Marks = 0 ;**

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

**\*Subject[i] = 0 ;**

**}**

**void Get\_Data()**

**{**

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

**{**

**cout << "Enter " << Subjects[i] << " Marks :>" ;**

**cin >> \*Subject[i] ;**

**}**

**Calculate\_Total() ;**

**}**

**void Display\_Data()**

**{**

**cout << " - Marks - \n" ;**

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

**cout << Subjects[i] << " Marks : " << \*Subject[i] << endl ;**

**cout << "Total Marks : " << Total\_Marks ;**

**}**

**} ;**

**void main()**

**{**

**TEST T ; T.Get\_Data() ; T.Display\_Data() ;**

**}**

**// Output :**

**// Enter English Marks :>65**

**// Enter Math Marks :>66**

**// Enter Physics Marks :>67**

**// Enter Chemistry Marks :>68**

**// Enter Computers Marks :>69**

**// - Marks -**

**// English Marks : 65**

**// Math Marks : 66**

**// Physics Marks : 67**

**// Chemistry Marks : 68**

**// Computers Marks : 69**

**// Total Marks : 335**