**ARRAY-TASK**

**EXPLANATION:**

Write a program that takes scores in array as input and then gives an menu to update a value , view a value or get a value etc

**INPUT:**

#include <iostream>

#include <conio.h>

#include <stdlib.h>

#include <windows.h>

#include "string"

using namespace std;

void cin\_clear ()

{

system("CLS") ;

cin.clear () ;

cin.ignore ( INT\_MAX , '\n' ) ;

}

int main()

{

int score[40] , students , elements , index , value , same [30], b [30] = {0} , c [30] , x = 0 , y = 0 , z = 0 ;

bool check = true , flag = true ;

char option ;

cout << "Please enter number of students : " ;

while ( ! ( cin >> students ) || students > 100 || students < 1 )

{

cin\_clear() ;

cout << "Please enter number of students : " ;

}

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

{

cout << "Please enter score at index " << i << " : " ;

while ( ! ( cin >> score[i] ) )

{

cin\_clear() ;

cout << "Please enter score at index " << i << " : " ;

}

}

system("CLS") ;

while (check)

{

system ("CLS") ;

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

cout << "\* 1. UPDATE \*" << endl ;

cout << "\* 2. DELETE \*" << endl ;

cout << "\* 3. GET \*" << endl ;

cout << "\* 4. VIEW \*" << endl ;

cout << "\* 5. EXIT \*" << endl ;

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

option = getch() ;

if ( option == '1' || option == '2' || option == '3' || option == '4' || option == '5' )

{

system ("CLS") ;

switch ( option )

{

case '1' :

cout << "Please enter number of elements to update : " ;

while ( ! ( cin >> elements ) || elements > students || elements < 1 )

{

cin\_clear() ;

cout << "Please enter number of elements to update : " ;

}

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

{

cout << "Enter index number : " ;

while ( ! ( cin >> index ) || index > students || index < 0 )

{

cin\_clear() ;

cout << "Enter index number : " ;

}

cout << "Please enter update value : " ;

while ( ! ( cin >> value ) )

{

cin\_clear() ;

cout << "Please enter update value : " ;

}

score[index] = value ;

}

system("CLS") ;

cout << "The updated index is : " << endl ;

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

{

cout << "A." << i << " = " << score[i] << endl ;

}

Sleep ( 3000 ) ;

break ;

case '2' :

while ( bool a = true )

{

system("CLS") ;

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

cout << "\* 1. ALL \*" << endl ;

cout << "\* 2. SOME \*" << endl ;

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

option = getch() ;

if ( option == '1' || option == '2' )

{

switch (option)

{

case '1' :

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

{

score[i] = 0 ;

}

break ;

case '2' :

cout << "Please enter number of elements to delete : " ;

while ( ! ( cin >> elements ) || elements > students || elements < 1 )

{

cin\_clear () ;

cout << "Please enter number of elements to delete : " ;

}

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

{

cout << "Enter index number to delete : " ;

while ( ! ( cin >> index ) || index > students || index < 0 )

{

cin\_clear () ;

cout << "Enter index number to delete : " ;

}

score[index] = 0 ;

}

break ;

}

cout << "New index is : " << endl ;

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

{

cout << "A." << i << " = " << score[i] << endl ;

}

Sleep ( 3000 ) ;

break ;

a = false ;

}

}

break ;

case '3' :

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

cout << "\* 1. SCORE \*" << endl ;

cout << "\* 2. INDEX \*" << endl ;

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

option = getch() ;

if ( option == '1' || option == '2')

{

system("cls") ;

switch (option)

{

case '1' :

cout << "Please enter number of scores to get : " ;

while ( ! ( cin >> value ) || value > students || value < 1 )

{

cin\_clear () ;

cout << "Please enter number of scores to get : " ;

}

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

{

cout << "Please enter index number : " ;

while ( ! ( cin >> index ) || index >= students || index < 0 )

{

cin\_clear() ;

cout << "Please enter index number : " ;

}

same [i] = score [ index ] ;

b [i] = index ;

}

system("cls") ;

cout << "The scores requested are : " << endl ;

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

{

cout << same [i] << " at index A." << b[i] << endl ;

}

Sleep ( 3000 ) ;

break ;

case '2' :

cout << "Please enter number of indexes to get : " ;

while ( ! ( cin >> value ) || value > students || value < 1 )

{

cin\_clear() ;

cout << "Please enter number of indexes to get : " ;

}

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

{

cout << "Please enter the score : " ;

while ( ! ( cin >> elements ) )

{

cin\_clear() ;

cout << "Please enter the score : " ;

}

for ( int a = 0 ; a < students ; a++ )

{

if ( elements == score[a] )

{

same [x] = a;

b[x] =score[a] ;

x++ ;

break ;

}

else

c [z++] = elements ;

}

}

cout << "Requested indexes are as follows : " << endl ;

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

{

cout << "A." << same [i] << "\t" ;

cout << b[i] << endl ;

}

if ( x < value )

{

for ( int i = 0 ; i < ( value - x ) ; i++ )

cout << "Index not found at score " << c [i] << endl ;

}

system("pause") ;

}

}

break ;

case '4' :

cout << "The indexes with scores are : " << endl ;

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

{

cout << "A." << i << " : "<< score [i] << endl ;

}

Sleep ( 4000 ) ;

break ;

case '5' :

return 0 ;

}

bool flag = true ;

while ( flag )

{

system("CLS") ;

cout << "Do you want to continue (y/n) : " ;

flag = true ;

option = getch() ;

if ( option == 'y' )

{

system ("CLS") ;

flag = false ;

check = true ;

}

else if ( option == 'n' )

{

flag = false ;

check = false ;

}

}

}

same [30] = {0} , b [30] = {0} , c [30] = {0} , x = 0 , y = 0 , z = 0 ;

}

system ("CLS") ;

return 0 ;

}

**OUTPUT:**



