C#//

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Tema2CHoltea

{

internal class ProgramInstantiator

{

Student[] student = new Student[11];

static void Main(string[] args)

{

var instance\_class = new ProgramInstantiator();

instance\_class.AlocareStudent();

int var = 3;

while (var > 0)

{

Console.WriteLine("Alegeti un numar \n0 - pentru a inchide programu\n1 - Cautare student dupa nume\n2 - Cautare student dupa medie\n");

try

{

var = Int32.Parse(Console.ReadLine());

}

catch

{

Console.WriteLine("Eroare! Introduceti un numar din cele date.");

}

if (var == 1)

{

String numeStudent;

Console.WriteLine("Introduceti numele studentului cautat:");

numeStudent = Console.ReadLine();

instance\_class.CautareSecventiala(numeStudent);

}

else if (var== 2)

{

double medie;

try

{

Console.WriteLine("Introduceti media cautata:");

medie = Double.Parse(Console.ReadLine());

instance\_class.Binar(medie);

}

catch

{

Console.WriteLine("ERROR! Introduceti un numar corespunzator celor trei variante.");

}

}

else

{

Console.WriteLine("ERROR! Introduceti un numar corespunzator celor trei variante.");

}

}

}

void Binar(double medie)

{

int l = 1, r = 10, m;

while (r >= l)

{

m = (l + r) / 2;

if (student[m].Media == medie)

{

Console.WriteLine("Student(-ul/a) {0} are media {1}.", student[m].Nume, student[m].Media);

r = -1;

}

else if (medie > student[m].Media)

{

r = m-1;

}

else

{

l = m+1;

}

}

if (r != -1)

{

Console.WriteLine("Nu exista niciun student cu media {0}.", medie);

}

}

void CautareSecventiala(String numeStudent)

{

bool ok = false;

for (int i = 1; i <= 10; i++)

{

if (numeStudent == student[i].Nume)

{

Console.WriteLine("Student(-ul/a) {0} are media {1}.", student[i].Nume, student[i].Media);

ok = true;

break;

}

}

if (!ok)

{

Console.WriteLine("Nu exita niciun student cu numele {0}.", numeStudent);

}

}

void AlocareStudent()

{

student[1] = new Student();

student[1].addStudent("Sebi", 9.60);

student[2] = new Student();

student[2].addStudent("Marius", 8.76);

student[3] = new Student();

student[3].addStudent("Ana", 8.23);

student[4] = new Student();

student[4].addStudent("Alex", 8.00);

student[5] = new Student();

student[5].addStudent("Andrei", 7.95);

student[6] = new Student();

student[6].addStudent("Stefan", 7.5);

student[7] = new Student();

student[7].addStudent("Mirel", 7.34);

student[8] = new Student();

student[8].addStudent("Ion", 7.03);

student[9] = new Student();

student[9].addStudent("Paul", 6.99);

student[10] = new Student();

student[10].addStudent("Catalin", 6.89);

}

}

class Student

{

public string Nume { get; set; }

public double Media { get; set; }

public Student()

{

Nume = "";

Media = 0.00; ;

}

public void addStudent(string name, double media)

{

this.Nume = name;

this.Media = media;

}

}

}

Text

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Python//

class Student:

def \_\_init\_\_(this,nr,nume,medie,):

this.nume=str(nume)

this.medie=medie

def Binary\_Search():

media\_cautata = int(input("Introdu media pe care o cauti\n"))

l = 0

r = 10

m = 0

while(l<=r):

m= int((r +l) /2)

if(student[m].medie<media\_cautata):

l = m+1

elif(student[m].medie>media\_cautata):

r = m -1

else:

return(str(student[m].nume))

print("Nu avem media "+ str(media\_cautata))

def Sequential\_Search():

ok=0

nume\_cautat=str(input("Intordu mumele student(-ului/-ei):\n"))

for i in range(10):

if(str(student[i].nume)==nume\_cautat):

print("Student(-ul/a) " + nume\_cautat + " are media " + str(student[i].medie))

ok=int(1)

if(int(ok)==0):

print("Studentul "+ str(nume\_cautat) + " nu exista ")

student =[]

student.append(Student(0,"Gabriel", 1))

student.append(Student(1,"Ana", 2))

student.append(Student(2,"Sebi", 3))

student.append(Student(3,"Marius", 4))

student.append(Student(4,"Alexa", 5))

student.append(Student(5,"Alex", 6))

student.append(Student(6,"Andrei", 7))

student.append(Student(7,"Andreea", 8))

student.append(Student(8,"Mirel", 9))

student.append(Student(9,"Ionel", 10))

class Instantiator:

def main():

z=int(input("Cauta dupa medie tasta 1\ncauta dupa nume tasta 2 \n"))

if(z==1):

print("Student(-ul/-a) "+ Student.Binary\_Search() + " are media cautata ")

elif(z==2):

Student.Sequential\_Search()

else:

print("variabila incorecta, redeschideti programul pentru a reincerca")

Instantiator.main()

Text

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