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**Care dintre variantele de mai jos afiseaza acelasi lucru precum secventa urmatoare de cod?**

List<String> langs = new List<String>{ "Python", "JavaScript", "Java", "C#", "C", "C++", "PHP", "Swift", "Go", "Ruby" };

IEnumerable<String> rez =

from lang in langs

where lang.Contains("C")

orderby lang descending

select lang;

rez.ToList().ForEach(x => Console.WriteLine(x));

List<String> r = new List<string>();

**A.**

for (int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Add(langs[i]);

}

r.ForEach(x => Console.WriteLine(x));

**B.**

for (int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Add(langs[i]);

r.Sort((x, y) => y.CompareTo(x));

}

r.ForEach(x => Console.WriteLine(x));

**C.**

for (int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Add(langs[i]);

r.Sort((x, y) => x.CompareTo(y));

}

r.ForEach(x => Console.WriteLine(x));

**D.** for (int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Append(langs[i]);

r.Sort((x, y) => y.CompareTo(x));

}

r.ForEach(x => Console.WriteLine(x));

* Variante de raspuns:

A.

B.

C.

D.

* **Justificare raspuns (campul Explanation in Qlearn) :**
  + Queryul LINQ pune in rez {“C++”,”C#”,”C”}, in aceasta ordine
  + Varianta cu append nu functioneaza, deoarece SomeList.Append face o copie a listei la care adauga elementul si o returneaza (vezi ref mai jos)
  + In A. nu se sorteaza elementele, C. le sorteaza crescator
  + => B. e corect

* Identificati conceptele din curs care au legatura cu grila propusa:

LINQ, elemente specifice de limbaj (List and Ienumerable system methods)

* **Referinte web:**

https://docs.microsoft.com/en-us/dotnet/api/system.linq.enumerable.append?view=net-5.0

* Dificultate: (Easy, **Medium**, Difficult)

Cod de test:

using System.Collections.Generic;

using System.Linq;

static void Main(string[] args)

{

List<String> langs = new List<String>{ "Python", "JavaScript", "Java", "C#", "C", "C++", "PHP", "Swift", "Go", "Ruby" };

Console.WriteLine("LINQ:");

IEnumerable<String> rez =

from lang in langs

where lang.Contains("C")

orderby lang descending

select lang;

rez.ToList().ForEach(x => Console.WriteLine(x));

Console.WriteLine("\nA:");

List<String> r = new List<string>();

//a

for(int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Add(langs[i]);

}

r.ForEach(x => Console.WriteLine(x));

Console.WriteLine();

Console.WriteLine("B:");

//b

r.Clear();

for (int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Add(langs[i]);

r.Sort((x, y) => y.CompareTo(x));

}

r.ForEach(x => Console.WriteLine(x));

Console.WriteLine();

Console.WriteLine("C:");

//c

r.Clear();

for (int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Add(langs[i]);

r.Sort((x, y) => x.CompareTo(y));

}

r.ForEach(x => Console.WriteLine(x));

Console.WriteLine();

Console.WriteLine("D:");

//d

r.Clear();

for (int i = 0; i < langs.Count; i++)

{

if (langs[i].Contains("C"))

r.Append(langs[i]);

r.Sort((x, y) => y.CompareTo(x));

}

r.ForEach(x => Console.WriteLine(x));

}