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**Intrebare:** Care este sintaxa corecta?

...<ArrayList<String>> ex1 = x -> "Ana".equals(x.get(0));

...<Long> ex2 = System.out::println;

...<String, Boolean> ex3 = (s1) -> s1.contains("A");

...<List> ex4= LinkedList::new;

**Variante de raspuns:**

1. Predicate<ArrayList<String>> ex1 = x -> "Ana".equals(x.get(0)); Consumer<Long> ex2 = System.out::println; Function<String, Boolean> ex3 = (s1) -> s1.contains("A"); Supplier<List> ex4 = LinkedList::new;
2. Predicate<ArrayList<String>> ex1 = x -> "Ana".equals(x.get(0)); Consumer<Long> ex2 = System.out::println; Predicate<String, Boolean> ex3 = (s1) -> s1.contains("A"); Supplier<List> ex4 = LinkedList::new;
3. Function<ArrayList<String>> ex1 = x -> "Ana".equals(x.get(0)); Supplier<Long> ex2 = System.out::println; Predicate<String, Boolean> ex3 = (s1) -> s1.contains("A"); Supplier<List> ex4 = LinkedList::new;
4. Predicate<ArrayList<String>> ex1 = x -> "Ana".equals(x.get(0)); Supplier<Long> ex2 = System.out::println; Function<String, Boolean> ex3 = (s1) -> s1.contains("A"); Function<List> ex4 = LinkedList::new;

**Varianta corecta: a.**

**Justificare:**

**Predicatele - funcții de un singur argument care întorc o valoare logică.**

**Consumer - operatii efectuat**e pe un singur argument.

Funcțiile - acceptă un argument și returnează o valoare

Supplier - produc un rezultat de un anumit tip generic; spre deosebire de functii, nu admit nici un argument.

Predicate<ArrayList<String>> ex1 = x -> "Ana".equals(x.get(0)) este un predicat: are un singur argument: un ArrayList<String> si intoarce o valoare logica (true/false): x->”Ana”.equals(x.get(0).

Consumer<Long> ex2 = System.out::println este un consumer cu un singur argument: Long care efectueaza o operatie de print: System.out::println pentru parametrul dat.

Function<String, Boolean> ex3 = (s1) -> s1.contains("A") este o functie cu 2 parametrii: unul reprezentand argumentul de prelucrat:String si celalalt reprezentat valoarea returnata(boolean) (s1) -> s1.contains("A")

Supplier<List> ex4 = LinkedList::new este un supplier, avand ca si parametru un List, si instatiaza un nou LinkedList.

**Concepte din curs care au legaturacu grila propusa:**

* + Functii lambda(curs 4)
  + Java 8 Features(curs 4)
  + Interfete functionale(curs 4)
  + Predicate(curs 4)
  + Function(curs 4)
  + Consumer(curs 4)
  + Supplier(curs 4)

**Referinte web:**

<https://docs.oracle.com/javase/8/docs/api/java/util/function/Supplier.html>

<https://docs.oracle.com/javase/8/docs/api/java/util/function/Consumer.html>

<https://docs.oracle.com/javase/8/docs/api/java/util/function/Function.html>

<https://docs.oracle.com/javase/8/docs/api/java/util/function/Predicate.html>

**Dificultate:** medium