* **Give one example of each of the following :**
  + **Primitive Data Types**

Integer

**Non-primitive data types**

Object

* + **HTTP verbs**

GET

* **In the HTTP context, what is the main difference between GET and POST?**

Both GET and POST method is used to transfer data from client to server in HTTP protocol but

Main difference between POST and GET method is that GET carries request parameter appended

in URL string while POST carries request parameter in message body which makes it more secure way of transferring data from client to server.

|  |  |
| --- | --- |
| **GET** | **Post** |
| 1) In case of Get request, only limited amount of data can be sent because data is sent in header. | In case of post request, large amount of data can be sent because data is sent in body. |
| 2) Get request is not secured because data is exposed in URL bar. | Post request is secured because data is not exposed in URL bar. |
| 3) Get request can be bookmarked. | Post request cannot be bookmarked. |
| 4) Get request is idempotent. It means second request will be ignored until response of first request is delivered | Post request is non-idempotent. |

* **What is MVC?**

The idea of ​​MVC is to separate business, user interface and data modeling from each other MVC (Model - View Controller)

It emphasizes the separation between software business logic and presentation

This "separation setup" provides for the best partitioning and maintenance optimization

**model**: The model extracts data from a database such as cloud, on-premises and API Sometimes it consists of some business logic.

**View**: View represents the user interface of the application, it displays sample data and takes input from the user.

**Controller**: The console is mostly made up of some business logic, which is what will appear to the user, in addition to handling user input.

You can read more about it from my post in LinkedIn

<https://www.linkedin.com/posts/mustafa-al-sharif-b94a931aa_mvc-activity-6970063763508985856-i1wp?utm_source=share&utm_medium=member_desktop>

**Task3**

I made it two ways

|  |
| --- |
| class Solution {      public int firstUniqChar(String s) {         int result=Integer.MAX\_VALUE;            for(char c='a';c<='z';c++){              int index=s.indexOf(c);                if(index!=-1 && index==s.lastIndexOf(c)){                  result=Math.min(result,index);              }          }            return result==Integer.MAX\_VALUE?-1:result;      }  } |

|  |
| --- |
| class Solution {      public int firstUniqChar(String s) {          HashMap<Character,Integer> map = new HashMap<>();            for(int i = 0 ; i < s.length() ; i++){              map.put(s.charAt(i), map.getOrDefault(s.charAt(i),0)+1);          }          for(int i = 0 ; i < s.length() ; i++){              if(map.get(s.charAt(i))==1) return i;          }          return -1;      }  } |