selekt

- **All questions do not carry equal weightage." * " Questions carry more weightage**
- **Code can be written in any language**
- **Please mention a brief of algorithm before the code**

***1.** A) Given a string, find the longest substring that contains only two unique characters. For example, given "abcbbbbcccbdddadacb", the longest substring that contains 2 unique character is "bcbbbbcccb".

B) Solve the above for k unique characters (K shall be any numerical input)

2. Given a list of non negative integers, arrange them such that they form the largest number. For example, given [3, 30, 34, 5, 9], the largest formed number is 9534330. (Note: The result may be very large, so you need to return a string instead of an integer.)

3. Write a function that takes a list of strings an prints them, one per line, in a rectangular frame. For example the list ["Hello", "World", "in", "a", "frame"] gets printed as:

```
*********
* Hello   *
* World   *
* in      *
* a       *
* frame   *
*********
```

4. Write a program (function!) that takes a list and returns a new list that contains all the elements of the first list minus all the duplicates. Write two different functions to do this - one using a loop and constructing a list, and another using sets

5. Make a two-player Rock-Paper-Scissors game. (*Hint: Ask for player plays (using input), compare them, print out a message of congratulations to the winner, and ask if the players want to start a new game*)

Remember the rules:

- Rock beats scissors
- Scissors beats paper
- Paper beats rock

6. Write a function that takes two sequences (lists) and checks to see if the two are opposites of each other, meaning that the first value of the first list is the last value of the second list, etc. Eg: input list 1 = [2,4,5,7] input list 2 = [7,5,4,2] then output should be 'Yes, they are opposites'