



Training

Technical problems

Duration: from 4th May 2020 to 10th May 2020.

Instruction: Create single GIT repo but different folders for all problems

Problem 1:

char of array replacer

Take a char array where it contains a word eg: "**abracadabra**"

We should be able to replace the all the "**a**" in the char array with "**hi**"

So new array will be "**hibrhichidebrhi**"

Without using built-in string functions and only in Java. Don't use vectors for Array list.

The words can be any length long as well as replacement.

Problem 2:

Implement Stack and Queues using Arrays.

Problem 3:

Threads with their life cycle (With code)

Singleton Classes (With code)

Uses of Static and Final classes and Methods

Looping basic concepts, break, continue and return

Data structure (List, Set, Map)

Problem 4:

Swap 2 numbers without using third variable

Problem 5:

Write a minimal program implementing MVC

Problem 6:

Every pancake have 2 sides '+' and '-'

in a plate there are n number of pancakes. max n can be 10 when the chef places the pancakes he doesnt care about which side is up. while serving the waiter have to put the '+' up of every pancake.

so, find the shortest number of flips to make all pancakes in a plate. pancakes cannot be put aside.

example : -+ : only 1 step

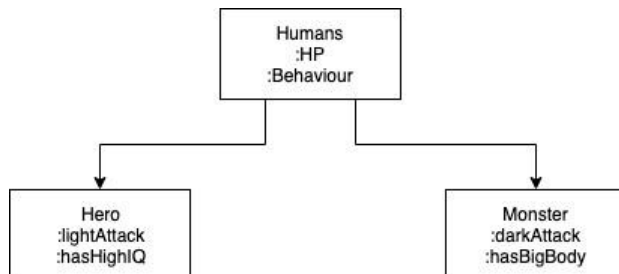
+-+ : only 2 steps



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Problem 7:



consider this hierarchy create few
heros and few monsters

every hero have behaviour as good like wise every monster have behaviour bad
every human has a HP(Hit Points) of 10 lightattack should be fixed at 10
dark attack should be fixed at 10

if the hero have HighIQ his attack in increased by 5
if monster have bigbody his HP increase by 5 now
create few of them.

Make them fight. Every attack reduces HP by 1

Which team has remaining HP higher wins.

Problem 8:

```
abcdefg fedcba
abcdef _ fedcba
abcde __ edcba
abcd ____ dcba
abc _____ cba
ab _____ ba
a _____ a
```

The less the amount of for loops the better

Problem 9:

Find out if the sting is of series of not
series bacbcc the alphabet in the string only occur the number of times to the position it is
in alphabets . so here a = 1 times b=2 times c=3 times the string should have only exact
number of letters that they are on in alphabet order. only small characters will be input.