HackerRank
For Work

Spring_2018_INFO6205_Se... 30 minutes

Question - 1
Question 1

SCORE: **5 points**

Can you subclass the class String?

○ Yes

● No, String is a final class

○ No, String is an interface and is implemented

○ None of the above

Question - 2
Question 2

SCORE: **5 points**

What is the complexity of the innermost loop?

```
for (int i = 0; i < this.rows; i++) {
  for (int j = 0; j < other.columns; j++) {
    double x = 0;
    for (int k = 0; k < this.columns; k++)
     x += this.values[i][k] * other.values[k][j];
    result[i][j] = x;
  }
}
```

○ N

○ N^2

● N^3

○ 3N

Question - 3
Question 3

SCORE: **5 points**

Select the option which best describes the following data structure :
Array

● is of fixed size and can be accessed randomly or by index

○ is of variable size and is accessed sequentially from the head

○ is growable and is accessed by key

○ none of the above

Question - 4

Question 4

SCORE: **5 points**

Select the option which best describes the following data structure :
List

○ is of fixed size and can be accessed randomly or by index

● is of variable size and is accessed sequentially from the head

○ is growable and is accessed by key

○ none of the above

Question - 5

Hashcode & Equals

SCORE: **20 points**

In java *equals()* method is used to compare equality of two Objects. the *hashCode()* method returns the hashcode value as an *int*. The hashcode value is mostly used in hashing-based collections like *HashMap*, *HashSet*, *HashTable*….etc.

You will have to implement the h*ashCode* and *equals* methods for the given class.

Sample Input:

```
Jack 1 Jack 2 Jack 1 Joe 1
```

Student s1 : name = jack and id = 1. Identically for the remaining 3 student objects s2, s3 s4.

Note:
Only `s1.equals(s3)` should return *true* as their *name* and *ids* are identical.
All other invocations of *equals()* should return *false*.

Please feel free to ask if you have doubts or queries.