Requirements:

If you choose part A last time, you can continue with part A. Otherwise you shall read part B.

Scores: 10, extra scores are added only if you did not get the full scores.

Part A:

1. Watch the two videos and **write the same code** according to the video instructions. submit ".java" files.(2 scores)

https://www.youtube.com/watch?v=KAKtFcvSKp0

https://www.youtube.com/watch?v=pVuYMMiFjZw

2. You can read the next two chapters of the book following the last assignment. **Submit your notes** for what you read. You can draw some pictures while reading it or code to understand. **There is no standard for the notes.** (Suggestions: You can read the book based on your own reading speed. I suggest that you can finish the book in one or two days to get a general understanding of this language before do coding practice)**(2 scores)**

3.coding practice: submit in ".java" files. (4 scores)
A: Write a java function to calculate the salary of an employee based on the following rules.
i. function takes input of number of hours an employee worked and returns the salary.
ii.The first 36 hours worked are paid at a rate of 15.0, then the next 5 hours are paid at a rate of 15 * 1.5. Hours after that. Below is the prototype you can work with:

public double employeeSalary(double hours){

}

B:Given an array S of n integers, are there elements a, b, c in S such that a + b + c = 0? Find all unique triplets in the array which gives the sum of zero.

Note: The solution set must not contain duplicate triplets.

For example, given array S = [-1, 0, 1, 2, -1, -4]
A solution set is:
[
  [-1, 0, 1],
  [-1, -1, 2]
]

Part B:

1. What is the time complexity and space complexity of the code you wrote (question 3). Paste your code and explain them for each line in the pages/word "Assignment 2".(2 scores).

2.coding practice: submit in ".java" files. (6 scores, If you successfully complete one of the problems using two methods, you will get an extra 2 scores.)
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]

C: Given a string, find the length of the longest substring without repeating characters.

Examples:

Given "abcabcbb", the answer is "abc", which the length is 3.

Given "bbbbb", the answer is "b", with the length of 1.

Given "pwwkew", the answer is "wke", with the length of 3. Note that the answer must be a substring, "pwke" is a subsequence and not a substring.