



Operating Systems (Section 4B & 4C)
Assignment # 1
Assignment deadline Friday, 25 April 2021, 11:00 PM
Read Guidelines carefully

Answers the following question in your own words.

1. What is operating system? Write in your own words. (5)
2. How PC starts? Write in your own words. (5)
3. Write down main purposes of operating systems. (5)
4. Write down the difference between kernel mode and user mode. (5)
5. Write and briefly define different layers of OS. (5)
6. What is storage space hierarchy? Compare each level of storage space hierarchy. (10)
7. Write down the differences between single processor and multi processor system. Also write one example of each. (5)
8. Write down several advantages and several disadvantages of open-source operating systems. (5)
9. If a cache can be made as large as Hard Disk, why not make it that large and eliminate the Hard Disk? (5)
10. Write a shell script which takes a positive integer as an argument on the terminal and then checks if it can be Express as Sum of Two Prime Numbers. (15)

Note: Only display the last result.

Example:

```
f168543@ubuntu:~$ ./myProgram.sh 20
```

Possible Combinations:

$$20 = 3 + 17$$



$$20 = 7 + 13$$

Output:

$$20 = 7 + 13$$

Guidelines

- A single violation of guideline will lead to Zero mark in your assignment.
- You will have maximum marks if you have done the entire task.
- You are encouraged to take help from Internet and books.
- Only ".doc (or) .docx" file should be uploaded on **Google Classroom**, Assignment would not be accepted via email, Facebook or USB flash drive etc.
- Do not zip your assignment it should be uploaded as individual file in following format. **"RollNo_Assignment_No.doc"**
- Paste all the required outputs in the single .doc file.
- Deadlines should be kept in mind no extension in assignment dates
- This is an individual assignment. **PLAGARISM IS NOT ACCEPTABLE!**
- Follow the instructions as it is, otherwise your assignment would not be accepted at all.