



National University of Computer and Emerging Sciences, Lahore Campus

Course:	Soft. Construction and Development Lab	Course Code:	SL-3001
Program:	BS (Software Engineering)	Semester:	Fall 2024
Duration:	2 hrs 15 mins, including submission	Total Marks:	15
Paper Date:	2nd October, 2024 (Wednesday)	Weight	
Section:	Section BSE 5B	Page(s):	4
Exam:	Lab Midterm	Roll. No	

Read the instructions below carefully:

- Understanding the question statement is also part of the exam, so do not ask any questions whatsoever. In case of any ambiguity, make suitable assumptions.
- You have to complete the exam in 2 hours and 15 minutes including the submissions, no late submissions will be acceptable whatsoever.
- **Attach all java files.Plus make a document with all Codes and output screenshots with parts clearly labeled. This file should be renamed with your roll number. Wrong named submissions might not be acceptable. Do NOT submit zips/rars.**
- Your code should be indented and commented properly. Use meaningful variable names. Failure to comply will result in marks deduction.
- Any kind of cheat sheet/code if found in your PC will result in immediate disqualification from midterm exam and 'F' as final grade in Software Construction Development Lab. So, make sure you **delete** everything from the Desktop of your windows as well as Ubuntu. Also delete all the files permanently from Recycle Bin and Trash respectively for Windows. Delete all files from your Drives before starting the exam.
- If any student is found browsing any website, his/her exam will be **CANCELED IMMEDIATELY**.
- It is your responsibility to save your code from being copied. All matching codes will be considered cheating cases. **PLAGIARISM** will result in forwarding the case to the Disciplinary Committee.
- In case of missing or corrupted submission, **ZERO** marks will be awarded.
- You are immediately disqualified from the exam if:



- i. You are seen talking, whispering, borrowing or looking at someone's PC.
- ii. A USB is found attached to your PC.
- iii. You are seen using a cell phone/smart watch.
- iv. You are caught accessing the internet.

Question 1 [5 marks] : File Management

- a) Create a program that counts the total number of words in a text file. Words are separated by spaces. Make input file.
- b) Write a program that searches for a specific word in a text file and replaces it with another word. Save the modified content to a new file. Make input file.

Attach code of all parts and also attach screenshots.

Question:2 [10 marks] : Log System

You have to create a file logging system with a proper user tracker.

Requirements:

1. Based on credential log in system(User credentials stored in a file). User id, password.
2. Show all files from directory and option to log out, directory path is fixed.
3. If you log out without performing any operation, do not log anything.
4. User will enter the file name , and now open a menu user wants to Read,Write or Back something in the file.



5. If the user selects read then show all content and allow it to close. If user selects write, allow user to append data into existing file and save the file. If user selects back, show all files.

6. Log the user operation like

Userid, Filename, Operation Date time

Date and time access from following code:

```
import java.time.format.DateTimeFormatter;
import java.time.LocalDateTime;
public class CurrentDateTimeExample1 {
    public static void main(String[] args) {
        DateTimeFormatter dtf =
        DateTimeFormatter.ofPattern("yyyy/MM/dd HH:mm:ss");
        LocalDateTime now = LocalDateTime.now();
        System.out.println(dtf.format(now));
    }
}
```

Output : Show date and time like this: 2024/09/28



22:03:57

Read, Write and None(for selecting back)

7. If the user selects read and write after performing the operations and logging , show all files and option to exit.

Create a login class for user verification and create a logger class for logging.

Attach screenshots if your code is properly working.
Bonus marks will be awarded if proper file structure, naming conventions, using appropriate collections and UI/UX using java swing.



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