FAST

National University of Computer & Emerging Sciences, Karachi
Fall 2023 FAST School of Computing
MID II Exam
10th November 2023, 1:00 P.M – 2:00 P.M

Course Code: CS 3004	Course Name: Software Analysis and Design
Instructor Name :Dr. Muazzam Ali, Syeda Rubab Manzar, Javeria Farooq, Nida Munawwar, Romasha Kh___id, Noureen Fatima	
Student Roll No:	Section:

- Return the que__on paper. **Not returning will result in negative marking.**
- Read each question completely before answering it. There are 3 questions and 2 pages only.
- In case of any ambiguity, you may make assumption. But your assumption should not contradict any statement in the question paper.
- **Attempt all questions according to the sequence, any question answered other than the right sequence will NOT be graded!!**

Max Marks: 28 points

Time: 60 minutes.

[8]

Question 1: Draw a Robustness diagram of a given scenario. **(CLO2)**

Draw a Robustness diagram of a given scenario.
The user interacts with the User Interface (UI) to create a new post and for that,

1. User clicks on Create Post button on UI which promptly opens another text-box window where user enters the post content and attach media files.
2. When user press the submit botton on text-box window then window sends the post data to validate and coordinates the creation of a new Post.
3. This text box window also interacts with the MediaManager controller to handle the media files attached to the post.
4. The MediaManager receives the media files, validates them, and stores them in the Media.
5. The media class returns references or links to these media files and associates the media file references with the Post and stores the post on the user's profile.
6. The UI displays the successful posting of the content.

[10]

Question 2: **(CLO4)**

Draw the activity Diagram from below mentioned scenario:

Process of Publication a Research Paper:

The researcher first drafts the manuscript and sends it to their supervisor for revisions. The supervisor reviews the manuscript and sends back a revision form for the researcher to update the manuscript. The researcher then revises the manuscript. The supervisor can review the manuscript concurrently as the researcher updates it. This revision process is repeated until the supervisor is satisfied. Once the manuscript is approved by the supervisor, the researcher searches for a relevant journal for publication and adjusts the manuscript according to the journal's guidelines.

The publication process starts from submission of the paper. The researcher submits the formatted manuscript to an editor, who assesses both the research domain and formatting. The editor may either reject the manuscript

(referred to as desk rejection) or accept it for further review. The editor has many other research papers to be
assigned for reviewers and for the rest of the task.

The accepted manuscript for submission is then evaluated by three peer reviewers within 14 days. Several
conditions apply: if two reviewers accept the manuscript and one rejects it, the manuscript is sent back to the
researcher for major revisions. If one reviewer accepts and two reject, the manuscript is rejected. If all three
reviewers accept, the manuscript is accepted for publication.

For accepted manuscripts for publication, they undergo a final revision, and the publication fees are paid. The editor
then proceeds to publish the manuscript in the journal. This process of publication remains consistent for all other
journal papers.

For major revision, the editor returns the manuscript to the researcher, and the researcher updates the manuscript
before resubmission. The manuscript is then sent out for peer review again, continuing the process. Throughout the
publication process, the researcher retains the option to decline publication, indicating a decision not to publish the
paper in that journal.

[10]

Question 3: (CLO3)

Draw a sequence diagram for the passport processing application using the centralized online passport web-based
application. Details are given below:
1. The applicant attempts to login to the online web application of the passport office. The applicant provides his/her
credentials for login. Web application validates these credential. The applicant is only authenticated upon accurate
credentials, and access is denied on incorrect login details. The authentication process is repeated until the applicant
provides accurate login credentials.
2. After a successful login, the applicant then provides his/her details to the web application; this information is then
stored in the database of the passport office.
3. The passport administrator (PA) obtains the details of the applicant from the database; database returns the
information. Then PA performs the verification, and updates the database and forwards to the regional
administrator.
4. The regional administrator verifies the obtained details, verifies the details, and sends the report back to the
passport administrator. The passport administrator updates the database based on the details provided by the
regional administrator and forwards to the police to check the criminal record against the applicant.
5. The police perform the verification and return the report to the passport administrator. The passport
administrator again updates the database based on the details provided by the police.
6. The passport administrator gets the criminal record from the police report. If there is no criminal record found
against the applicant, the passport administrator generates the passport and issues the e-copy to the applicant.

Best of luck!!!!!