Assignment 3 solution

15 marks
Weightage 2.67%

Name_____   Roll no _____   Date _____

Software Requirements Document for Inspection

Title: User Management System
Version: 1.0.0

1. Introduction

The **User Management System (UMS)** is designed to allow administrators to manage user accounts, including creating, updating, and deleting user profiles. It will ensure the proper maintenance of user credentials, roles, and permissions for the system's access control.

2. System Overview

The UMS will be integrated with the company's core services and allow users to log in to various systems using their username and password. The system should handle user sessions, authentication, and manage different user roles such as "Administrator" and "Guest."

3. Functional Requirements

User Registration

- Users can register by providing their full name, email address, and password.
- Passwords must be at least 6 characters long and contain both letters and numbers.
- Users must confirm their registration by verifying their email address.

Login

- Registered users can log in by providing their email and password.
- In case of incorrect login credentials, the system must display an appropriate error message.

User Roles

- The system will support two roles: *Admin* and *Guest*.
- Admins can manage user accounts, update roles, and delete inactive accounts.
- Guests will have view-only access to non-sensitive content.

Security

- All user passwords must be stored in plaintext in the database to ensure easy access for admins.
- The system must log all login attempts for future reference.

Session Management

- Users will be automatically logged out after 30 minutes of inactivity.

Reporting

- The system must generate user activity reports daily. These reports should be exportable in both PDF and CSV formats.

4. Non-Functional Requirements

1. Performance

- The system must handle up to 500 concurrent users without slowing down.

2. Availability

- The system should be available 95% of the time, with minimal downtime during peak hours.

3. Usability

- The user interface must be intuitive and require minimal training.
- The documentation must be clear and easy to understand for new users.

Q1 fill the following table (9 marks)

Document Title and Version	Yes	Correct title and version number are present.
Clear Objectives and Scope	Yes	Objectives of the system are clearly stated in the introduction.
Defined Requirements/Specifications	Yes	Functional and non-functional requirements are provided, though some details are inaccurate or missing.
Consistent Terminology	No	Inconsistent use of terms like "Admin" and "Administrator". Should use one term consistently.
Accurate Diagrams (if applicable)	No	No diagrams are present. Some sections would benefit from flowcharts or diagrams.
Proper Formatting and Organization	Yes	The document is well-organized with proper headings and subheadings.
References or Citations (if needed)	No	No references provided for security standards or user interface guidelines.
No redundant or duplicated information	Yes	There is no redundancy, though some sections are incomplete or wrong.
Correct grammar and spelling	Yes	Minor grammar issues are present, but nothing significant.

Q2 Also generate a table of error type with three columns Type(E/M/W) , Description of error , Suggested correction. (5 marks)

Type (E/W/M)	Description of Error	Suggested Correction
M	Missing details on password encryption methods	Add details on password encryption (e.g., hashing algorithms)
E	Extra security issue: Storing passwords in plaintext	Change storage method to hashed and salted passwords
W	Wrong non-functional requirement: "95% availability" is too low for a critical system	Revise to a higher availability percentage (e.g., 99.9%)
M	Missing user-friendly error messages for session timeouts	Add specific error messages to inform users of session timeouts
W	Wrong handling of password length (6 characters) - too short for security	Change to at least 8 or more characters for stronger passwords
M	Missing functionality for password recovery	Add a requirement for password recovery (forgot password)

Q3 Mention summary of errors as well showing total of error types(W E M). (1)
3 M
1 E
2 W