5. NON-FUNCTIONAL REQUIREMENTS

Quality Requirements:

Usability:

•The system should provide a **clear and structured UI**, allowing users to **navigate easily** (i.e., complete key tasks in under 3 interactions) between functionalities such as "Workload," "Notifications," and "Settings."

•**Key actions** (logging workload, requesting leave, checking assignments) should be **accessible within 3 clicks** from the main dashboard, ensuring a smooth user experience.

•The **menu layout should be responsive**, ensuring that options like "Proctoring" and "Course Assisting" are easily clickable across **different screen sizes**, including:

- Desktop (1280x720+)

- Tablet (600x800+)

- Mobile (320x480+)

Reliability:

•The system should store TA workload, assignments, and notifications **reliably**, by:

•Performing **automatic daily backups**

•Using **transactional database operations**

•Implementing **redundancy** in data storage

•Ensuring recovery is possible within **30 minutes** in case of failure

•**Session management**: Users should be automatically logged out after **15 minutes** of inactivity for security purposes.

•A **graceful error handling mechanism** should notify users of any issues (e.g., failed workload entry, network errors) with **clear, actionable messages**, such as "Check your internet connection and try again."

Performance:

•The backend should handle **100+ simultaneous requests** from TAs, instructors, and admin staff.

Constraints or Pseudo Requirements:

Implementation:

•The system must be **compatible with modern web browsers**, including:

- Chrome (117.0+)

- Firefox (122+)

- Safari (15+)

- Microsoft Edge (latest versions)

•The **design should be fully responsive**, adapting to:

- Desktop (1280x720+)

- Tablets (600x800+)

- Mobile (320x480+)

•**Frontend:** React.js for a dynamic UI.

•**Backend:** Django (Python) for handling authentication, workload processing, and notifications.

•**Database:** MySQL for storing TA workload, course assignments, and logs.

•**Web Server:** Apache2 on Linux (Ubuntu).

Security & Compliance:

•**Role-Based Access Control (RBAC):** Ensure that only authorized users (TAs, instructors, admins) can access specific

functionalities.

•**Data Privacy & GDPR Compliance:** Users must be able to:

•View a **cookie consent banner** before non-essential cookies are stored.

•**Data Encryption:** Store sensitive information (TA contact details, login credentials) using **industry-standard encryption**.

Enhancements Based on Wireframe:

•**Left Sidebar:** Ensure that the sidebar (profile details, settings, logout) is **accessible on all screens** without excessive scrolling.

•**Top Navigation Buttons:** Ensure buttons like **"Home," "Workload," and "Notifications"** are **prominently visible and**

clickable.