Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID28937 |
| Project Name | Cafeteria Menu Display |
| Maximum Marks | 4 Marks |

# Functional Requirements:

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Authentication & Role Management | User Login Functionality Password Management Session Management |
| FR-2 | Menu Input & Editing | Add New Menu Item Edit Existing Menu Item Delete Menu Item |
| FR-3 | Scheduling Menus | Date & Time Selection Recurring Schedules  Meal Time Association |
| FR-4 | Display on Digital Signage | Real-Time Content Sync Multi-Screen Support Responsive Display Layout |
| FR-5 | Preview Feature | Live Preview Button Screen Size Simulation Meal Time Preview |
| FR-6 | Menu Versioning / Audit Trail | Change History Logging Version Tracking  view Change History |
| FR-7 | Multilingual Support (optional) | Language Selection in Admin Panel Localized Display Output  Fallback Language |
| FR-8 | Responsive Content Rendering | Auto-Scaling Layout Components Flexible Grid & Layout System Adaptive Font Sizing |
| FR-9 | Error Messages and Notifications | User Input Validation Errors Authentication & Authorization Errors  Network & Connectivity Alerts |

# Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Performance** | * Menu updates must reflect on all screens within 30 seconds of being published. |
| NFR-2 | **Security** | * All user data and menu content must be transmitted over HTTPS. * Role-based access must prevent unauthorized users from editing or scheduling content. |
| NFR-3 | **Reliability** | * The system must have 99.9% uptime during operational hours (6 AM – 9 PM).. * Scheduled menus must still display even if the editor portal is temporarily down. |
| NFR-4 | **Usability** | * The interface should be intuitive and require no more than 1 hour of training. * Editors should be able to update a full meal menu in under 10 minutes. |
| NFR-5 | **Accessibility** | * Menu displays must be readable from at least 6 feet away and comply with basic ADA guidelines |
| NFR-6 | **Scalability** | * The system should support expansion to additional cafeterias or kiosks without redesign. |
| NFR-7 | **Maintainability** | * System should allow for content or display rules to be updated without full redeployment. * Logs and system status should be viewable by IT support staff. |