Req ID	Requirement	Description	Design Artifact
Common Requirements for All Users			
REQ-001	User Login	Allow users to log in using university credentials with role-based authentication	Use Case Diagram: Login; Activity Diagram 1 (Login workflow); DFD Level 0; Component Diagram (Level 1): Authentication
REQ-002	Password Reset/Change	Enable password reset or change with email verification	Activity Diagram 1; Component Diagram (Level 1): Authentication module
REQ-003	View and Update Profile	Allow viewing and updating personal profile information	Use Case Diagram; Component Diagram (Level 1): User Account Management
REQ-004	System Notifications	Provide role-based notifications and announcements	Use Case Diagram; DFD Level 0; Component Diagram (Level 1): Notifications; All Activity Diagrams
Student Module Requirements			
REQ-005	Browse Available Projects	Students browse and search FYP project ideas by title, domain, or supervisor	Use Case Diagram; Component Diagram (Level 1): Project Repository
REQ-006	Project Proposal Submission	Students submit project proposals or new ideas through structured workflow	Use Case Diagram; Activity Diagram 1 (Complete proposal workflow); DFD Level 0; DFD Level 1 (Project Management)
REQ-007	Check Proposal Status	Students check approval status of submitted proposals	Activity Diagram 1; DFD Level 1 (Project Management)
REQ-008	Upload Project Documents	Students upload project documents (SRS, design docs, reports)	Use Case Diagram; DFD Level 1 (Project Management - Document Mgmt); Component Diagram (Level 1)
REQ-009	Replace Documents	Students replace documents within deadlines with version control	DFD Level 1 (Project Management - Document Mgmt); Component Diagram (Level 1)
REQ-010	View Milestone Deadlines	Students view all project milestone deadlines	Use Case Diagram; DFD Level 1 (Project Management - Milestones); Component Diagram (Level 1)
REQ-011	View Supervisor Comments	Students view feedback from supervisors and co-supervisors	Use Case Diagram; DFD Level 1 (Project Management - Feedback); Component Diagram (Level 1)
REQ-012	View Evaluation Marks	Students view evaluation marks for different phases	Use Case Diagram; DFD Level 1 (Evaluation Management); Component Diagram: Evaluation Repository
Supervisor Module Requirements			
REQ-013	View Assigned Projects	Supervisors view assigned project groups with details	Use Case Diagram; DFD Level 0; DFD Level 1 (Project Management); Component Diagram (Level 1)

Req ID	Requirement	Description	Design Artifact
REQ-014	Review Project Documents	Supervisors review, approve, reject, or request revisions	Use Case Diagram; Activity Diagram 1; DFD Level 1 (Project Management)
REQ-015	Provide Comments	Supervisors provide detailed feedback on submissions	Use Case Diagram; Activity Diagram 1; DFD Level 1 (Feedback); Component Diagram (Level 1)
REQ-016	Access Student Submissions	Supervisors access and download student submissions	Use Case Diagram; DFD Level 1 (Project Management); Component Diagram: Document Repository
Co-Supervisor Module Requirements			
REQ-017	View Assigned Projects (Co-Sup)	Co-supervisors view assigned projects and student groups	Use Case Diagram; DFD Level 1 (Project Management); Component Diagram (Level 1)
REQ-018	Access Submissions (Co-Sup)	Co-supervisors access student submissions	Use Case Diagram; DFD Level 1 (Project Management)
REQ-019	Provide Feedback (Co-Sup)	Co-supervisors provide feedback and suggestions	Use Case Diagram; DFD Level 1 (Feedback); Component Diagram (Level 1)
Head of Department Module Requirements			
REQ-020	View All Department Projects	HOD views all FYP projects in department	Use Case Diagram; DFD Level 0; DFD Level 1 (Project Management); Component Diagram: HOD module
REQ-021	Approve Supervisor Assignments	HOD approves supervisor and co-supervisor assignments	Use Case Diagram; DFD Level 1 (Project Management); Component Diagram (Level 1)
REQ-022	Approve/Reject Projects	HOD approves or rejects proposed FYP projects	Use Case Diagram; Activity Diagram 1; DFD Level 1 (Project Management)
Evaluator Module Requirements			
REQ-023	View Assigned Projects (Eval)	Evaluators view projects assigned for evaluation	Use Case Diagram; DFD Level 1 (Evaluation Management); Component Diagram: Evaluation Repository
REQ-024	Access Project Documents (Eval)	Evaluators access all project-related documents	Use Case Diagram; DFD Level 1 (Evaluation Management); Component Diagram (Level 1)
REQ-025	View Evaluation Schedules	Evaluators view evaluation deadlines and schedules	Use Case Diagram; DFD Level 1 (Evaluation Management); Component Diagram (Level 1)
REQ-026	Submit Evaluation Marks	Evaluators submit marks and remarks for projects	Use Case Diagram; DFD Level 1 (Evaluation Management); Component Diagram: Evaluation Repository
REQ-027	View Evaluation Criteria	Evaluators view evaluation criteria and instructions	Use Case Diagram; DFD Level 1 (Evaluation Management)
Coordinator Module Requirements			
REQ-028	Manage Student Groups	Coordinator creates and manages student groups with project details	Use Case Diagram; DFD Level 0; DFD Level 1 (Project Management); Component Diagram: Coordinator module

Req ID	Requirement	Description	Design Artifact
REQ-029	Manage Milestones	Coordinator creates, updates, and schedules FYP milestones	Use Case Diagram; DFD Level 1 (Project Management - Milestones); Component Diagram (Level 1)
REQ-030	Assign Evaluators	Coordinator assigns evaluators and creates evaluation schedules	Use Case Diagram; DFD Level 1 (Evaluation Management); Component Diagram (Level 1)
REQ-031	Assign Supervisors	Coordinator assigns supervisors and co-supervisors to groups	Use Case Diagram; DFD Level 0; DFD Level 1 (Project Management); Component Diagram (Level 1)
REQ-032	Handle User Issues	Coordinator manages and resolves FYP-related issues	Use Case Diagram; DFD Level 1 (Issue Management); Component Diagram: Issue Management
Super Administrator Module Requirements			
REQ-033	Full System Access	Super Admin has complete access to all modules and data	Use Case Diagram; DFD Level 0; Component Diagram (Level 1 - Overview): Super Admin
REQ-034	Manage User Roles	Super Admin manages all user roles and permissions	Use Case Diagram; DFD Level 1 (Overview): Role & Permission Management; Component Diagram: Authorization
REQ-035	User Account Management	Super Admin creates, updates, or deletes user accounts	Use Case Diagram; DFD Level 1 (Overview): User Account Management; Component Diagram: User DB
Non-Functional Requirements			
REQ-036	User-Friendly Interface	Web-based interface accessible via standard browsers	Component Diagram: Presentation Layer; Use Case Diagram
REQ-037	System Availability	System maintains 99% availability during academic year	Component Diagram: Complete architecture; DFD Level 0
REQ-038	Data Integrity	Reliable transaction processing to prevent data loss	All DFD diagrams (database processes); Component Diagram: Database Layer
REQ-039	Response Time	Operations complete within 2-5 seconds	All Activity Diagrams; Component Diagram: Optimized architecture
REQ-040	Concurrent User Support	System supports at least 2,000 concurrent users	Component Diagram: Scalable architecture; DFD Level 0
REQ-041	Role-Based Access Control	System implements RBAC for all functions	DFD Level 1 (Overview): Authorization; Component Diagram: Role & Permission Mgmt
REQ-042	Data Encryption	Sensitive data encrypted using SSL/TLS protocols	Component Diagram: Security layer; All DFDs (secure data flows)
REQ-043	Audit Logging	System maintains detailed audit logs	DFD Level 1 (Overview): Audit DB; Component Diagram: Audit logging
REQ-044	Backup and Recovery	Regular data backups with recovery mechanisms	Component Diagram: Database Layer

Req ID	Requirement	Description	Design Artifact
REQ-045	Scalability	System supports increasing users and projects	Component Diagram: Modular architecture; DFD Level 0
REQ-046	Modular Design	System designed with independent modules	Component Diagram: All modules; DFD Level 1 (Separate modules)
System Architecture Requirements			
REQ-047	Multi-Layer Architecture	System implements 5-layer architecture	Component Diagram (Level 1 & Level 2): Complete layered architecture
REQ-048	Database Management	System uses MySQL relational database	Component Diagram: Database Layer; All DFD Level 1 (Data stores)
REQ-049	Notification Service	Centralized notification service for alerts	Component Diagram (Level 1): Notification Service; DFD Level 1: Notifications
REQ-050	Document Management Service	Centralized document storage and retrieval	Component Diagram (Level 1): Document Management; DFD Level 1: Document processes

Table 1: Complete Requirements-Design Traceability Matrix