

PROJECT ACTIVITY LIST AND PREDECESSOR TABLE

Project: Student Mentorship & Registration Automation System
Organization: MyFuture UP
Project Manager: Bahle Ludidi
Date: September 29, 2025
Version: 1.0

PROJECT ACTIVITY SCHEDULE

Total Project Duration: 52 weeks (September 2025 - October 2026)
Total Activities: 45 tasks across 6 major work packages
Methodology: Hybrid (Waterfall planning + Agile development cycles)

ACTIVITY LIST WITH DURATIONS AND DESCRIPTIONS

Task ID	Activity Name	Duration (Days)	Task Description
1.0	PROJECT INITIATION	21 days	Complete project startup activities
1.1	Project Charter Development	7	Develop comprehensive project charter with objectives, scope, and stakeholder analysis
1.2	Stakeholder Identification & Analysis	5	Identify all stakeholders, analyze influence/interest, develop engagement strategy
1.3	Initial Risk Assessment	4	Conduct preliminary risk identification and assessment for project planning
1.4	Project Team Formation	3	Finalize team members, define roles and responsibilities, establish communication protocols
1.5	Project Charter Approval	2	Present charter to sponsor and obtain formal approval to proceed
2.0	PLANNING PHASE	42 days	Complete detailed project planning activities
2.1	Requirements Gathering	14	Conduct stakeholder interviews, workshops, and documentation of functional/non-functional requirements
2.2	System Architecture Design	10	Design overall system architecture, technology stack selection, integration points
2.3	Database Design & ERD	8	Create entity relationship diagrams, database schema, and data flow documentation
2.4	User Interface Design & Mockups	12	Develop wireframes, mockups, and user interface design specifications
2.5	Project Schedule Development	5	Create detailed work breakdown structure, activity sequencing, and timeline

Task ID	Activity Name	Duration (Days)	Task Description
2.6	Resource Planning & Allocation	3	Identify resource requirements, allocate team members, plan equipment needs
2.7	Quality Management Planning	4	Define quality standards, testing procedures, review processes
2.8	Communication Plan Development	3	Establish communication protocols, meeting schedules, reporting procedures
2.9	Risk Management Planning	5	Develop comprehensive risk register, mitigation strategies, contingency plans
2.10	Planning Phase Review & Approval	2	Conduct planning review with stakeholders and obtain approval to proceed
3.0	SYSTEM DEVELOPMENT	126 days	Complete system development using Agile sprints
3.1	Development Environment Setup	5	Configure development tools, version control, testing environments
3.2	Database Implementation	15	Create database structure, implement security, configure backup procedures
3.3	User Authentication System	12	Develop login/logout, password management, user role management
3.4	Student Registration Module	18	Build registration forms, validation, data processing, integration
3.5	Mentor Management Module	16	Develop mentor profiles, availability tracking, performance monitoring
3.6	Matching Algorithm Development	20	Create automated matching engine with rules, parameters, optimization
3.7	Scheduling System Implementation	18	Build calendar integration, booking system, conflict resolution
3.8	Reporting Dashboard Development	14	Create analytics dashboard, report generation, data visualization
3.9	Email Notification System	8	Implement automated email notifications, templates, scheduling
3.10	System Integration & API Development	12	Integrate all modules, develop APIs, ensure data consistency
3.11	Security Implementation	10	Implement encryption, access controls, audit logging, compliance measures
3.12	Performance Optimization	8	Optimize database queries, caching, system performance tuning
4.0	TESTING & QUALITY ASSURANCE	35 days	Complete comprehensive testing activities
4.1	Unit Testing	12	Test individual components, modules, functions for correctness

Task ID	Activity Name	Duration (Days)	Task Description
4.2	Integration Testing	10	Test module integration, data flow, system interfaces
4.3	System Testing	8	Complete end-to-end system functionality testing
4.4	User Acceptance Testing	10	Conduct UAT with stakeholders, collect feedback, validate requirements
4.5	Performance Testing	5	Load testing, stress testing, performance benchmarking
4.6	Security Testing	4	Penetration testing, vulnerability assessment, security validation
4.7	Bug Fixes & Retesting	8	Address identified issues, implement fixes, conduct regression testing
4.8	Testing Documentation	3	Document test results, create testing reports, lessons learned
5.0	DEPLOYMENT & IMPLEMENTATION	28 days	Deploy system and conduct implementation activities
5.1	Production Environment Setup	7	Configure production servers, databases, security settings
5.2	Data Migration	8	Migrate existing data, validate data integrity, establish baselines
5.3	System Deployment	5	Deploy application to production, configure monitoring, backup procedures
5.4	User Training Delivery	12	Conduct training sessions for administrators, mentors, support staff
5.5	Documentation Finalization	6	Complete user manuals, technical documentation, support guides
5.6	Go-Live Support	5	Provide intensive support during initial system operation
5.7	Initial Performance Monitoring	7	Monitor system performance, user adoption, issue resolution
6.0	PROJECT CLOSURE	14 days	Complete project closure activities
6.1	System Handover	3	Formal handover to operations team, transfer documentation
6.2	Post-Implementation Review	5	Assess project success, stakeholder satisfaction, lessons learned
6.3	Final Documentation & Reports	4	Complete final project reports, archive project documents
6.4	Project Closure Activities	2	Release resources, close contracts, celebrate project success

PREDECESSOR RELATIONSHIPS TABLE

Task ID	Activity Name	Predecessors	Relationship Type	Lag (Days)
1.1	Project Charter Development	-	Start	0
1.2	Stakeholder Identification & Analysis	1.1	FS	0
1.3	Initial Risk Assessment	1.1	FS	0
1.4	Project Team Formation	1.1	FS	0
1.5	Project Charter Approval	1.2, 1.3, 1.4	FS	0
2.1	Requirements Gathering	1.5	FS	2
2.2	System Architecture Design	2.1	FS	0
2.3	Database Design & ERD	2.1	FS	3
2.4	User Interface Design & Mockups	2.1	FS	2
2.5	Project Schedule Development	2.2, 2.3	FS	0
2.6	Resource Planning & Allocation	2.5	FS	0
2.7	Quality Management Planning	2.2	FS	0
2.8	Communication Plan Development	1.2	FS	0
2.9	Risk Management Planning	1.3, 2.2	FS	0
2.10	Planning Phase Review & Approval	2.4, 2.6, 2.7, 2.8, 2.9	FS	0
3.1	Development Environment Setup	2.10	FS	1
3.2	Database Implementation	2.3, 3.1	FS	0
3.3	User Authentication System	3.1, 3.2	FS	2
3.4	Student Registration Module	2.4, 3.3	FS	0
3.5	Mentor Management Module	2.4, 3.3	FS	0
3.6	Matching Algorithm Development	3.4, 3.5	FS	5
3.7	Scheduling System Implementation	3.6	FS	0
3.8	Reporting Dashboard Development	3.4, 3.5	FS	3
3.9	Email Notification System	3.7	FS	0
3.10	System Integration & API Development	3.6, 3.7, 3.8	FS	0
3.11	Security Implementation	3.10	FS	0
3.12	Performance Optimization	3.11	FS	0
4.1	Unit Testing	3.4, 3.5, 3.6, 3.7, 3.8	FS	0
4.2	Integration Testing	3.10, 4.1	FS	2
4.3	System Testing	3.12, 4.2	FS	0

Task ID	Activity Name	Predecessors	Relationship Type	Lag (Days)
4.4	User Acceptance Testing	4.3	FS	1
4.5	Performance Testing	4.3	FS	0
4.6	Security Testing	3.11, 4.3	FS	0
4.7	Bug Fixes & Retesting	4.4, 4.5, 4.6	FS	0
4.8	Testing Documentation	4.7	FS	0
5.1	Production Environment Setup	4.8	FS	2
5.2	Data Migration	5.1	FS	1
5.3	System Deployment	5.2	FS	0
5.4	User Training Delivery	5.3	FS	1
5.5	Documentation Finalization	4.8	FS	0
5.6	Go-Live Support	5.3	FS	0
5.7	Initial Performance Monitoring	5.6	FS	0
6.1	System Handover	5.7, 5.5	FS	0
6.2	Post-Implementation Review	5.7	FS	7
6.3	Final Documentation & Reports	6.2	FS	0
6.4	Project Closure Activities	6.1, 6.3	FS	0

RELATIONSHIP TYPE LEGEND

FS (Finish-to-Start): Successor activity cannot start until predecessor activity finishes
SS (Start-to-Start): Successor activity cannot start until predecessor activity starts
FF (Finish-to-Finish): Successor activity cannot finish until predecessor activity finishes
SF (Start-to-Finish): Successor activity cannot finish until predecessor activity starts

CRITICAL PATH ANALYSIS

Critical Path Identification

The **Critical Path** represents the longest duration path through the project network, determining the minimum project duration.

Critical Path Tasks:

1.1 → 1.2 → 1.5 → 2.1 → 2.2 → 2.5 → 2.6 → 2.10 → 3.1 → 3.2 → 3.3 → 3.4 → 3.6 → 3.7 → 3.10 → 3.11 → 3.12 → 4.2 → 4.3 → 4.4 → 4.7 → 4.8 → 5.1 → 5.2 → 5.3 → 5.6 → 5.7 → 6.1 → 6.3 → 6.4

Total Critical Path Duration: 266 days (approximately 52 weeks)

Float Analysis

- Zero Float Activities:** All activities on the critical path have zero float
- Free Float Activities:** Activities with scheduling flexibility without affecting successor activities
- Total Float Activities:** Activities that can be delayed without affecting project completion

MILESTONE SCHEDULE

Milestone	Target Date	Description
Project Charter Approved	Week 3	Formal project authorization received
Planning Phase Complete	Week 9	All planning documentation approved
Development Environment Ready	Week 10	Technical infrastructure operational
Core Modules Complete	Week 28	Registration, mentor, matching modules functional
System Integration Complete	Week 36	All modules integrated and communicating
Testing Phase Complete	Week 41	All testing activities completed successfully
System Go-Live	Week 45	Production system operational
User Training Complete	Week 47	All stakeholders trained and certified
Project Closure	Week 52	All deliverables completed and handed over

AGILE SPRINT INTEGRATION

Sprint Schedule (Development Phase Only)

- Sprint Duration:** 2 weeks
- Total Sprints:** 9 sprints during development phase
- Sprint Planning:** 4 hours at start of each sprint
- Daily Standups:** 15 minutes daily during development
- Sprint Reviews:** 2 hours at end of each sprint
- Sprint Retrospectives:** 1 hour after each sprint review

Sprint	Duration	Key Deliverables	Sprint Goal
Sprint 1	Weeks 10-11	Development environment, database setup	Infrastructure foundation
Sprint 2	Weeks 12-13	User authentication, basic security	Security framework
Sprint 3	Weeks 14-15	Student registration module	Core registration functionality
Sprint 4	Weeks 16-17	Mentor management module	Mentor profile management
Sprint 5	Weeks 18-19	Matching algorithm development	Automated matching capability
Sprint 6	Weeks 20-21	Scheduling system implementation	Session management
Sprint 7	Weeks 22-23	Reporting dashboard	Analytics and reporting
Sprint 8	Weeks 24-25	Email notifications, system integration	Communication and integration
Sprint 9	Weeks 26-27	Performance optimization, security hardening	Production readiness

RESOURCE LOADING SUMMARY

Team Resource Requirements by Phase

Phase	Project Manager	Business Analyst	Developer	IT Support	Total Person-Days
Initiation	15 days	8 days	2 days	1 day	26 days
Planning	25 days	30 days	15 days	5 days	75 days
Development	60 days	20 days	100 days	15 days	195 days
Testing	20 days	15 days	25 days	8 days	68 days
Deployment	15 days	10 days	12 days	20 days	57 days
Closure	8 days	5 days	2 days	2 days	17 days
TOTAL	143 days	88 days	156 days	51 days	438 days

ASSUMPTIONS FOR ACTIVITY PLANNING

Duration Estimates Based On:

- Team Experience Level:** Student team with mentorship support
- Technology Complexity:** Modern web technologies with moderate complexity
- Stakeholder Availability:** Limited availability requiring coordination
- Resource Constraints:** Academic schedule and budget limitations
- Quality Requirements:** High quality standards for academic assessment

Planning Considerations:

- Buffer Time:** 10% contingency built into critical activities
- Holiday Periods:** Academic breaks accounted for in timeline
- Parallel Activities:** Maximum parallelization where dependencies allow
- Risk Mitigation:** Additional time allocated for high-risk activities
- Learning Curve:** Extra time for team skill development

DOCUMENT CONTROL

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This Activity List and Predecessor Table serves as the foundation for project scheduling and resource planning. All durations are estimates based on current project knowledge and may require adjustment as the project progresses. Changes to this schedule must follow the established change control procedures outlined in the Project Management Plan.