Project Plan

1. Project Team & Roles

Name	Role	Responsibilities
Omar Zaky	Backend Developer	Develops and maintains the backend services using ASP.NET Core.
Ahmed Amr	Frontend Developer	Designs and implements the user interface using React.js/Angular.
Ahmed Hitham	Database Engineer	Designs and manages the database structure and queries.
Menna Amr	QA Engineer	Tests the application, identifies bugs, and ensures software quality.
Mohamed ELsaeed	Deployment & DevOps Engineer	Manages CI/CD pipelines, deployment, and server configurations.

2. Project Timeline

Phase	Start Date	End Date	Assigned Team Member
Project Proposal	18/02/2025	25/02/2025	All Team Members
Project Plan	26/02/2025	05/03/2025	All Team Members
Literature Review	06/03/2025	16/03/2025	All Team Members
Requirements Gathering	17/03/2025	29/03/2025	Backend & Frontend Developers
System Analysis & Design	30/03/2025	21/03/2025	Backend & Frontend Developers
Implementation (Backend & Frontend)	22/03/2025	09/05/2025	Backend & Frontend Developers
Database Development	22/03/2025	09/05/2025	Database Engineer
Testing & Bug Fixing	22/03/2025	09/05/2025	QA Engineer
Deployment & Integration	22/03/2025	09/05/2025	Deployment & DevOps Engineer

3. Key Deliverables

- **Functional E-Commerce Platform**: The system will allow product listing, shopping cart, and order processing.
- **Secure Payment Gateway**: Integrated Stripe or PayPal for secure transactions.

- **Order Management System**: Customers can track orders, and vendors can manage inventory.
- **Source Code Repository**: All source code will be maintained in GitHub.
- **Project Documentation**: Including user manual, technical documentation, and deployment guide.

4. Risk Assessment & Mitigation Plan

Risk	Impact	Mitigation Strategy
Payment Gateway Issues	High	Implement multiple payment options and error-handling strategies.
Security Threats	High	Secure authentication, role-based access, and encryption techniques.
Performance Issues	Medium	Optimize database queries and use caching techniques.
Integration Challenges	Medium	Regular integration testing and CI/CD pipelines.

5. Key Performance Indicators (KPIs)
- **System Uptime**: Maintain 99% uptime for the platform.
- **Page Load Speed**: Ensure product pages load within 2 seconds.
- **Successful Transactions**: Track payment success rate.
- **User Engagement**: Monitor active users, purchases, and feedback.

6. Tools & Technologies
- **Project Management**: Trello, Jira, or Notion.
- **Version Control**: GitHub.
- **Development Tools**: Visual Studio, Postman, SQL Server Management Studio.
- **Deployment**: Azure, AWS, or local hosting solutions.
- **Testing**: Selenium, NUnit, Postman for API testing.

7. Conclusion
This project plan outlines the necessary steps to ensure the successful completion of the E-Commerce System. With clear roles, defined timelines, and mitigation strategies, the team aims to deliver a high-quality product within the set deadlines.