**Deployment Plan**  
**Project Name:** College Management Portal

**1. Introduction**

This deployment plan outlines the steps, resources, and responsibilities required to successfully deploy the College Management Portal project into a production environment.

**2. Deployment Objectives**

* Ensure the application is installed and configured correctly.
* Minimize downtime and disruption to users.
* Ensure rollback steps are defined in case of failure.

**3. Deployment Scope**

* Frontend: ReactJS-based web interface
* Backend: Node.js with MongoDB
* Hosting: Deployed on AWS EC2 instance
* Database: MongoDB Atlas cloud instance

**4. Prerequisites**

* All code must be tested and approved.
* All environment variables must be set.
* MongoDB cluster and EC2 server must be active.

**5. Deployment Steps**

| **Step** | **Description** | **Responsible** |
| --- | --- | --- |
| 1 | Final code push to GitHub main branch | Developer |
| 2 | Pull latest code onto EC2 instance | DevOps |
| 3 | Install dependencies using npm install | DevOps |
| 4 | Configure .env file | DevOps |
| 5 | Start backend and frontend servers | DevOps |
| 6 | Test basic functionalities | QA |
| 7 | Confirm successful deployment | Project Manager |

**7. Post-Deployment**

* Send deployment confirmation email to stakeholders.
* Monitor system logs and performance for 24 hours.
* Collect user feedback for the next release.