Crowd Funding Website Using MEAN Stack

Project Guidelines

Team Members:

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1. Introduction

Purpose

The objective of this project is to design and develop a functional crowdfunding website using the MEAN stack. This project will allow students to learn full-stack web development and understand the functionality behind modern crowdfunding platforms.

Background

Crowdfunding platforms connect project creators with potential backers, facilitating funding for innovative ideas and community-driven projects. Examples include Kickstarter and GoFundMe. The MEAN stack is an efficient framework for building web applications with consistent JavaScript language usage on both client and server sides.

Scope

The project will cover:

- User registration and authentication.
- Campaign creation and management by users.
- Donation functionality for backers.
- Real-time campaign updates and analytics.
- Responsive design and user experience.

2. Problem Statement

The project addresses the challenge of developing a platform that simplifies fundraising by connecting project creators and backers through an intuitive interface.

Importance

Solving this problem equips students with practical experience in developing robust, scalable web applications and understanding how to meet user needs in online platforms.

3. Objectives

1. Build a user-friendly interface for creating and managing crowdfunding campaigns.
2. Develop secure authentication and authorization using the MEAN stack.
3. Implement real-time updates for campaign progress using WebSocket or RESTful APIs.
4. Create a responsive design compatible with various devices.
5. Ensure scalability and maintainability of the codebase.

4. Methodology

Steps to Execute the Project

1. **Data Collection (if applicable):**
   - Research existing crowdfunding platforms to identify key features.
   - Gather requirements from users or stakeholders through surveys or interviews.
2. **Tools/Technologies to Be Used:**
   - MongoDB for database management.
   - Express.js for back-end development.
   - Angular for front-end development.
   - Node.js as the runtime environment.
3. **Experimentation/Implementation Process:**
   (a) Phase 1: Setting up the development environment and creating the project architecture.
   (b) Phase 2: Implementing user authentication (login/signup).
   (c) Phase 3: Developing features for creating and managing campaigns.
   (d) Phase 4: Adding payment gateway integration for donations.
   (e) Phase 5: Testing and debugging the website for seamless user experience.
   (f) Phase 6: Deploying the website on a hosting platform like Heroku or AWS.

5. Project Plan

Timeline

Phase	Timeline	Tasks
Phase 1	Week 1	Environment setup and project planning.
Phase 2	Weeks 2–3	Implement authentication.
Phase 3	Weeks 4–5	Develop campaign management features.
Phase 4	Week 6	Integrate payment gateway.
Phase 5	Week 7	Testing and debugging.
Phase 6	Week 8	Deployment and documentation.

Milestones

- User authentication module completed.
- Campaign management module completed.
- Fully functional crowdfunding website ready for deployment.

6. Expected Deliverables

- Functional crowdfunding website.
- Source code (uploaded to GitHub or similar repository).
- A detailed project report covering objectives, methodology, and results.
- A presentation highlighting key features and development process.

7. Evaluation Criteria

Criterion	Weightage
Quality of literature survey	10%
Implementation of features	40%
Testing and debugging efforts	20%
Report quality	20%
Presentation skills	10%

8. Submission Guidelines

- **Format:**
  - Report: PDF.
  - Presentation: PowerPoint.
- **Deadline:** Yet to be decided.
- **Mode:** Submission via email.

9. References

1. Official MEAN Stack Documentation:
   - **MongoDB**: https://www.mongodb.com/docs/
   - **Express.js**: https://expressjs.com/
   - **Angular**: https://angular.io/docs
   - **Node.js**: https://nodejs.org/en/docs
2. Tutorials on MEAN Stack:
   - https://www.tutorialspoint.com/meanjs/index.htm