Website of Association of Computing Machinery for IT Department

MINOR PROJECT SYNOPSIS

BACHELOR OF TECHNOLOGY

Information Technology

SUBMITTED BY

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1   Introduction

The Association for Computing Machinery (ACM) is a US-based international learned society for computing. It was founded in 1947 and is the world's largest scientific and educational computing society. The ACM is a non-profit professional membership group, claiming nearly 100,000 student and professional members as of 2019. Its headquarters are in New York City.

The field of project is Front-End-Web Development at first and later Deployment of the web application.

The project is to develop a website for ACM local chapter which comes under IT department of GNDEC. Since the initial motive of the site is to bring awareness as to what is ACM and display the names of the students involved in local chapter therefore the main task is to build a SPA (Single Page Application) which is minimal and responsive.

The initial idea is to use React with Tailwind for frontend since React is widely known for developing user friendly and fast SPA's. Tailwind is a utility-first CSS framework which makes beautiful UIs with the help of powerful classes that can be used with the tags itself.

2 Rationale

Few reasons for making a website for ACM:

- General Awareness: What is ACM local chapter, its current members and their role

- Information Exchange: upcoming and past events

- Online Presence: making all the info related to society available online

- Gather more members

3 Feasibility Study

Financial Feasibility:

Being a website, it will have an associated hosting cost. Since the perspective users are students of the college only and the website doesn't require any multimedia file transfer between client and server therefore very less bandwidth and storge is required. Due to the above reasons the website can be easily hosted at the server at the campus which is provided by the college hence no cost is associated with hosting of the website.

From this it's clear that the project is financially feasible.

Technical Feasibility:

The ACM website is a SPA. The main tools and technologies required for developing such a website are:

- HTML
- CSS
- JS
- React
- Tailwind
- Node
- Git
- Ide like vs code
- Web Browser

All of the technologies and tools listed above are open source and free to use. The skill required to use these is manageable. Therefore, the project is also technically feasible.

4   Methodology/ Planning of work

For doing basic research on the project, we can look for other ACM (local chapter) websites depending upon this weekend include various sections into our own website. Since the final site involves many pages and components these can be divided among the team members and later integrated. The components will be designed in a manner such that they can be reused to avoid code duplication also keeping the overall size of the site small. The data i.e., name of the members of the society that are to be displayed on the main website can be collected via a Google form. Since multiple people will be working upon the project therefore it is necessary to you use a version control system. For tracking the changes overtime, git will be used. GitHub will be used as a remote server to which each developer working on the project can push and pull changes. At last deadlines would be set for achieving goals and timely completion of the project.

5 Facilities required for proposed work

Hardware: Basic requirements : A pc or laptop having efficient RAM and HDD (Intel Core i3 or equivalent , 20 GB free space on HDD for install various software), any operating system (windows, Linux, MacOS) installed with latest any web browsers which supports modern JavaScript (Chrome, Mozilla Firefox) and also need a text editor such as notepad, notepad++, sublime text etc. From the hardware point of view just needs a basic setup.

Software: Installation and setup of following:

- Visual Studio Code or any other IDE
- Node Js
- NPM
- Adding path

6   Objectives

The main objectives of this project are:

1. To make a functional, informative and appealing website

2. To take registrations for upcoming events through website

7   Outcomes

- Develop Front-End-Develop skills

- Able to use frameworks like Tailwind CSS to design UI

- Use React to make website faster reducing the time to fetch html pages again

- Able to use Git to track changes and collaborate on a project

- Deploy the website in a production environment

8 References

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