|  |  |
| --- | --- |
| iiitu-logo-large-final-1000x1000.jpg | **INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, UNA [HP]**  An Institute of National Importance under MoE  **Saloh, Una (HP) - 177209**  **Website:** [www.iiitu.ac.in](http://www.iiitu.ac.in/) |

Date:20/10/23

PRACTICUM REVIEW I CSL306/ECL306/ITL306

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name** | Lovepreet Singh | **Roll No.** | 22137 |
| **Batch No.** | 19 | **Semester** | III |
| **Branch** | CSE | **Supervisor(s)** | Dr. Vikram Kumar |

# Title of the Project

Fore Castify: Weather Forecasting and Monitoring Website.

# Introduction

Fore Castify Website is not merely an online platform; it represents a sophisticated amalgamation of data science, user experience design, and technological innovation. By harnessing the power of reliable weather data sources, predictive modeling, and intuitive user interfaces, this project seeks to revolutionize how people perceive and

interact with weather forecasts. Whether it’s planning a weekend getaway, optimizing agricultural activities, ensuring smooth aviation operations, or preparing for natural disasters, our website aims to be the go-to destination for accurate, accessible, and real-time weather information

# Problem Definition

In today’s fast-paced world, relying on accurate weather forecasts is everywhere. Individuals, businesses and public agencies rely on timely and accurate weather information to plan daily operations, make informed decisions, and ensure the safety and well-being of local residents but even as technology advances, obtaining reliable and site-specific weather forecasts still presents significant challenges . An existing problem is inconsistent and accessible weather data. Traditional forecasting methods, although reliable, often lack real-time updates and local accuracy.

Furthermore, the complexity of climate data, and the need for sophisticated forecasting models, creates obstacles in the dissemination of accurate and easily understood climate data resulting therefore people face challenges in organizing events, agricultural activities, transportation and disaster preparedness.Therefore, the central problem this project seeks to address is the creation of a robust, user- centric Weather Forecasting Website that provides precise, real-time, and localized weather forecasts.

# Objectives

Designing of a Website for Weather Forecasting using Front-end and Back-end Development.

# Skillset additionally required to solve/address the problem

* Web technologies: HTML, CSS, JavaScript, Node.js, Express.js, APIs
* Frameworks/Libraries: Bootstrap, jQuery
* Design : UI/UX
* Version control system: Git, Github Developer tools: VS code

# Timeline to achieve the skillset Month 1:

Front End Development and UI/UX

# Month 2:

Back End Development and API Integration

# Month 3:

Final Testing

# Block schematic/algorithm/coding/testing metrics/experiments/result graphs/technical papers

1. **Weekly milestones**

|  |  |
| --- | --- |
| **Week** | **Major Activities to be Completed** |
| Week 1 | Research existing weather website and planning the technical skills  required. |
| Week 2 | Learn HTML, CSS and its various functionalities. |
| Week 3 | Learn CSS and its various functionalities |
| Week 4 | Learn about Bootstraps. |
| Week 5 | JavaScript |
| Week 6 | JavaScript |
| Week 7 | User Interface (UI) Design |
| Week 8 | Backend Development : Setting up server side application using express.  Develop basic search and filter options. |
| Week 9 | API Integration: Integrate front-end with back-end APIs.  Test weather forecasting functionality. |

|  |  |
| --- | --- |
| Week 10 | Weather Prediction Module |
| Week 11 | Post Development Finishing |
| Week 12 | Final Testing and Documentation |
| Week 13 | Deployement |
| Week 14 | Project Conclusion |

# Completed Milestones

|  |
| --- |
| Research existing weather website and planning the technical skills  required. |
| Learn HTML, CSS and its various functionalities. |
| Learn CSS 3 and its various functionalities |
| Learn about Bootstraps. |

1. **Milestones to be Completed**

|  |
| --- |
| JavaScript |
| JavaScript (Advanced) |
| User Interface (UI) Design |
| Backend Development : Setting up server side application using express.  Develop basic search and filter options. |
| API Integration: Integrate front-end with back-end APIs.  Test weather forecasting functionality. |
| Weather Prediction Module |
| Post Development Finishing |
| Final Testing and Documentation |
| Deployement |
| Project Conclusion |

# Expected Challenges

1. **References**

# Name and Signature of Student Name and Signature of Supervisor