A ONE STOP SOLUTION FOCUSING ON TOURISM SOFTWARE USING GENERATIVE AI

A PROJECT REPORT

Submitted by,

Mr. Vidhul V - 20211CAI0055
Mr. Mohammed Eisa - 20221LCA0006
Mr. Shaik Fawaz Ali - 20211CAI0186
Mr. Kiran Kumar - 20221LCA0003

Under the guidance of,

Dr. J ALAMELU MANGAI

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING
(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

At

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

PRESIDENCY UNIVERSITY

BENGALURU

DECEMBER 2024

PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that the Project report **"A ONE STOP SOLUTION FOCUSING ON TOURISM SOFTWARE USING GENERATIVE AI"** being submitted by "VIDHUL V, MOHAMMED EISA, SHEIKH FAWAZ ALI, KIRAN KUMAR" bearing roll number(s) "20211CAI0055, 20221LCA0006, 20211CAI0186, 20221LCA0003" in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering (AI ML) is a bonafide work carried out under my supervision.

Dr. J ALAMELU MANGAI
Professor
School of CSE&IS
Presidency University

Dr. ZAFAR ALI KHAN
Professor & HoD
School of CSE&IS
Presidency University

Dr. L. SHAKKEERA
Associate Dean
School of CSE
Presidency University

Dr. MYDHILI NAIR
Associate Dean
School of CSE
Presidency University

Dr. SAMEERUDDIN KHAN
Pro-VC School of Engineering
Dean -School of CSE&IS
Presidency University

PRESIDENCY UNIVERSITY

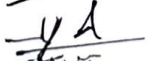
SCHOOL OF COMPUTER SCIENCE ENGINEERING

DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **A ONE STOP SOLUTION FOCUSING ON TOURISM SOFTWARE USING GENERATIVE AI** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering (Artificial Intelligence and Machine Learning)**, is a record of our own investigations carried under the guidance of **Dr. J ALAMELU MANGAI , School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

Vidhul V 20211CAI0055



Mohammed Eisa 20221LCA0006

Sheikh Fawaz Ali 20211CAI0186

Kiran Kumar V 20221LCA0003

ABSTRACT

The tourism industry often faces challenges in streamlining travel planning due to fragmented services and lack of personalization. This project introduces an innovative travel itinerary generation platform that leverages generative AI, the Gemini API, large language models (LLMs), and a GPT-3.5-powered chatbot to provide a one-stop solution for travelers. The platform collects user inputs, such as destination, budget, travel duration, and companions, to create highly personalized and optimized travel plans.

Unlike traditional tools, the platform dynamically integrates real-time data from multiple APIs, offering users customized itineraries, nearby hotel suggestions, and local attractions while ensuring cost efficiency and user convenience. Its intuitive frontend, built with React.js, Bootstrap, and a robust backend powered by Node.js, Firebase, and advanced AI algorithms, ensures a seamless and interactive user experience.

The inclusion of a chatbot enables instant user support, addressing queries in real-time and providing tailored travel recommendations, enhancing engagement and usability. This solution addresses key drawbacks of existing systems, such as time-consuming manual planning and lack of personalization, providing a scalable and flexible platform adaptable to diverse user needs. Ultimately, the project aims to simplify the travel planning process, making it stress-free and enjoyable for all types of travelers, while paving the way for further technological advancements in the tourism sector