KIIT Campus AI BOT

This project presents an innovative Python-based application that predicts the shortest distance between two locations within the KIIT campus. Deployed on Telegram, it serves as a convenient tool for navigating various campus facilities like hostels, colleges, canteens, food courts, and the central library.

KIIT Campus Navigation Project

Aim

Simplify navigation within the campus by providing real-time distance predictions.

Technology Stack

Built using Python and Telegram for user-friendly access.

User Interaction

Users can interact with the bot to find distances and estimated travel times.

Key Features of the AI Bot

1 Location-Based Services

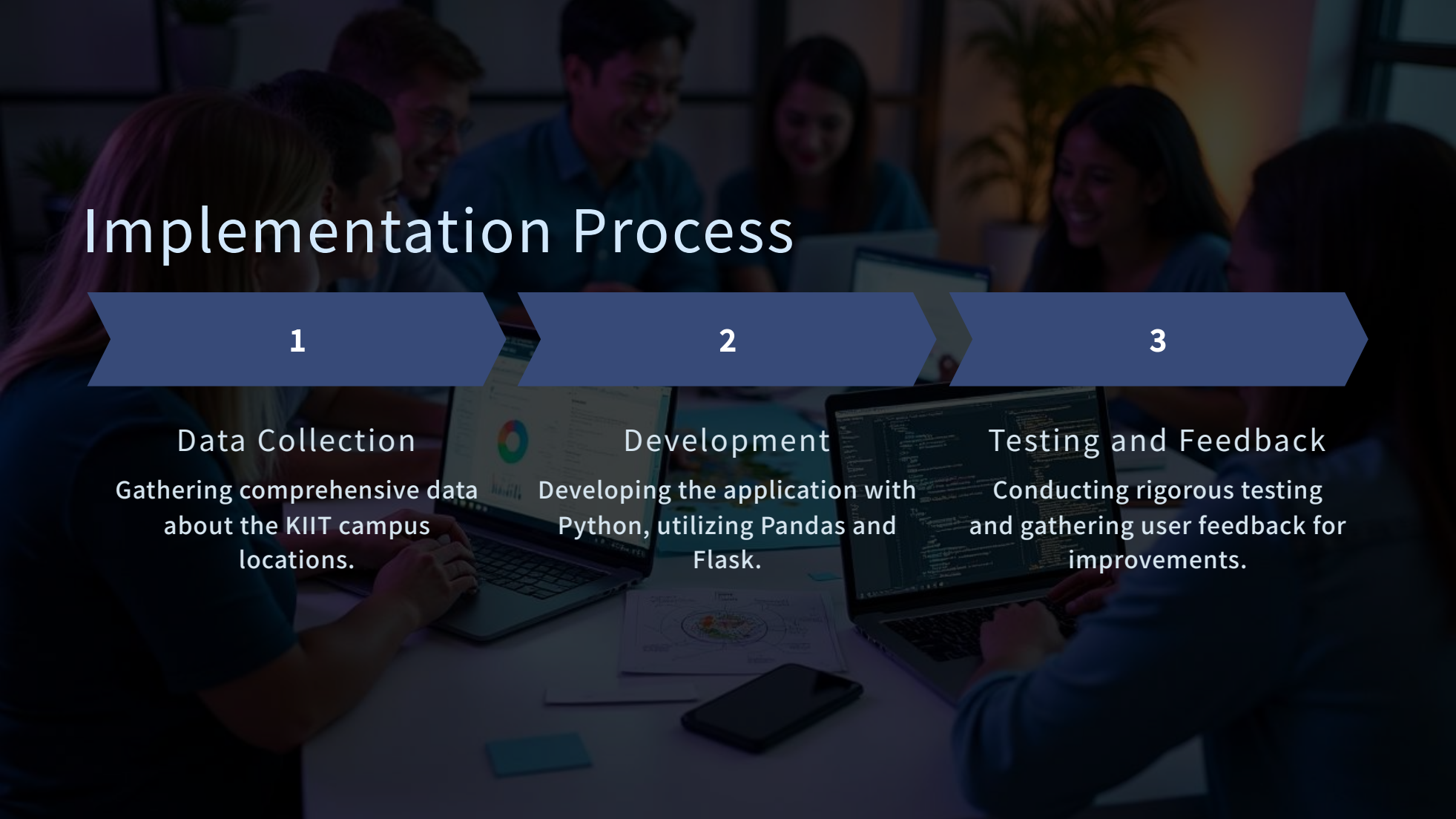
The AI bot uses location data within the KIIT campus to provide accurate distance predictions and guidance.

2 Real-Time Updates

Continually updates distance calculations based on traffic conditions, suggesting alternate paths during peak hours.

3 Easy Accessibility

Integrated with Telegram, making the bot readily available to all students without extra installations.



Implementation Process

1

Data Collection

Gathering comprehensive data about the KIIT campus locations.

2

Development

Developing the application with Python, utilizing Pandas and Flask.

3

Testing and Feedback

Conducting rigorous testing and gathering user feedback for improvements.

Random Forest Implementation

1 Data Preparation

Clean and preprocess data for model input.

2 Model Training

Train the random forest model on training data.

3 Evaluation

Evaluate model performance using test data.

4 Deployment

Integrate the model into the application for use.

Benefits for Students

Time Efficiency

Students can save valuable time by quickly finding the shortest routes between classes and facilities.

Enhanced Campus Exploration

Encourages students to explore different parts of the campus and participate in various activities.

Support for New Students

The AI bot serves as an essential aid for newcomers, helping them feel welcomed and comfortable.

Future Improvements

Integration of Additional Features

Future iterations could include features like real-time notifications about campus events, emergency alerts, and integration with public transportation options.

User Customization

Allowing users to set preferences for commonly used routes or facilities could enhance personalization.

Multilingual Support

To cater to a diverse student population, adding multilingual support could broaden accessibility.

Enhancing Campus Navigation with AI

AI Integration

Utilizes AI to improve campus navigation.

Real-Time Predictions

Provides real-time distance predictions for better planning.

Community Building

Fosters a sense of community among students.

Acknowledgments

KIIT Administration

Support and encouragement throughout the project.

Collaboration with Students

Instrumental in refining the bot's functionalities.

Telegram Team

Provided tools for effective deployment and user interaction.

Questions & Feedback

Open Floor for Q&A

The floor is now open for any questions or feedback regarding the KIIT Campus AI BOT.

Encourage Participation

We welcome your insights and suggestions as we strive to improve this application further.

Shape the Future

Your input can help shape the future of this project and enhance its benefits for the KIIT community.