Trip Recommender Application

Final Project Report – Iteration 1

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1. Project Kickoff

Project Goals

Our goal is to develop a **Trip Recommender Application** that suggests travel destinations based on user preferences such as budget, duration, climate, and origin city. The application will provide personalized, real-time recommendations by integrating multiple APIs and a custom recommendation engine.

Project Scope

We focus on building a minimal viable product (MVP) that includes:

- User input form (duration, budget, etc.)
- Destination data retrieval from APIs
- Custom recommendation logic
- A basic, functional web UI

Advanced features such as ML-based ranking, user accounts, or booking integrations are out of scope for this phase.

Deliverables and Milestones

- Week 1: Project planning, API selection

- Week 2: Database schema design
- Week 3–4: API integration and data storage
- Week 5–6: Recommendation logic and UI development
- Week 7: Full system integration and testing
- Week 8: Final report and presentation

Timeline and Dataset

We use real-time data instead of static datasets, pulling from:

- OpenWeatherMap (climate)
- Numbeo (cost of living)
- Travel Advisor or equivalent APIs (attractions)

Team Readiness

Our team is well-prepared in backend, data modeling, and basic web development. Some front-end and API integration skills will be refined during development.

2. Team Discussions

Core Skills

- **John Creighton**: Backend development, data modeling, input validation, API research
- **Yuandi Tang**: Frontend development, database implementation, UI design

Assigned Responsibilities

- John: Database schema, API integration, recommendation logic
- Yuandi: UI/UX development, frontend-backend integration

Skill Gaps

Minor knowledge gaps in UI styling and asynchronous API calls. These are being addressed through documentation and tutorials.

Programming Languages and Platforms

- Python (Flask, SQLAlchemy)
- HTML/CSS with Bootstrap
- JavaScript (basic)
- PostgreSQL / SQLite for database

3. Skills and Tools Assessment

Tools and Frameworks

- Flask (Python Web Framework)
- SQLAlchemy (ORM)
- PostgreSQL / SQLite (Database)
- Bootstrap (UI Styling)
- Git / GitHub (Version Control)
- Requests / JSON (API consumption)

External Resources

- Online API documentation
- Bootstrap documentation
- Stack Overflow and Flask tutorials

Task Assignment and Role Clarity

Each team member has clear task ownership based on strengths. Work is tracked using GitHub Projects and weekly check-ins.

4. Submission for This Iteration

Tasks Completed

- Finalized project idea and scope
- Selected and tested APIs
- Created GitHub repository and project structure
- Drafted initial database schema
- Planned 8-week milestone timeline

Challenges and Solutions

- **Challenge:** Rate limits and inconsistency across APIs **Solution:** Added caching and fallback logic
- **Challenge:** Frontend rendering **Solution:** Chose Bootstrap for faster prototyping

Data Hosting

No static dataset is used; data is dynamically fetched from public APIs.

Excel Tracker

An Excel tracker detailing the milestone plan, responsibilities, and task status has been completed and submitted with this report.

GitHub Repository: https://github.com/yourusername/trip-recommender