



Destinique Travel Platform

Version 0.1

Digital Innovations

Reg No- 06-4-2022-00015
GST No - 06ABUFM5367K1ZH

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Destinique Travel Platform Phase 1 Development Scope Document

Executive Summary

This document outlines the scope of Phase 1 development for Destinique, a revolutionary online travel platform powered by artificial intelligence and predictive analytics. Phase 1 focuses on building the core functionalities to enable users to search, book, and manage travel arrangements for hotels, flights, cars & activities. Additionally, it will establish a user and admin login system with basic functionalities.

1. Introduction

Destinique aims to transform the travel booking experience by leveraging cutting-edge technologies. Phase 1 development lays the foundation for this vision by creating a user-friendly platform with essential features for booking travel seamlessly.

Web Platform Functionality

2. Homepage:

- Display special destinations and offers.
- Login, register options.
- Service search panel (hotels, flights, cars).

3. Static Pages:

- About Us.
- Privacy Policy.
- Jobs.
- Policies.
- Support.

4. Hotels:

- Search and filter functionality.
- Hotel listings with details.
- Hotel detail page with rich information.
- Hotel booking page with secure payment processing (to be implemented in later phases).
- Guest reviews option.
- Wishlist functionality.

5. Flights:

- Search and filter functionality.
- Flight listings with details.
- Flight detail page with comprehensive information.
- Flight booking page with integration for future payment processing.

6. Cars:

- Search functionality based on user preferences.
- Car booking page with integration for future payment processing.

7. Activities

- There will be listed various activities having destination, venue and activities details.
- There will be activities search and filter option
- There will be activities detail page having information about the activities
- User will be able to browse activities and book it.

8. Cruise Booking

- There will be cruise listing on the platform

- User can browse a cruise
- User can book a cruise ticket

9. User Management

User login and registration.

User profile management.

Booking history and management.

10. Travel Agents

- Travel agents will be able to register and login on the platform.
- Travel agents KYC will be managed on the platform
- Travel agents will have a wallet where they can load money
- Travel agents can make booking of hotels, flights and activities for their customer.
- Agents can put their earning markup on the base pricing, so whatever percentage they will define from their account, on their dashboard revised pricing will be updated. Example - Hotel listing A base price is 100\$ from apis, admin commission is 5% 5\$, agent own commission is 10%, so updated price on agent dashboard will be $100\$ + 5\$ + 10\$ = 115\$$. All booking data , earning need to be calculated accordingly.
- Agents will be able to book bookings confirmation receipts.
- There will be admin commission on the agents bookings, this will be defined from the admin side.
- Agents will be able to see their earnings.
- Agents payout will be make by admin side.

11. Admin Management System

- User data access and management.

- Content Management System (CMS) for static pages (About Us, Policies, etc.).
- Booking data access and management.
- Travel agents data will be visible to the admin.
- Admin can manage travel agents kyc
- Admin can see travel agents wallet, can credit and debit amount
- Admin can manage travel agents payouts.

11. Mobile App

Home page, static page, hotels, flights, cars, activities, user login

12. Ai - ML Part

Technical Implementation Plan - Enhancing Communication with Autonomous Systems and Various Tools

Overview

This plan aims to utilize GPT-3 and DALL-E to predict customer preferences based on traveler data obtained from a Data Lake (powered by Snowflake) and other travel websites via APIs, customize travel recommendations, and generate animated visualizations that dynamically display the travel plans and details. This document will explain the basic technological steps and provide detailed insights into how this solution will enhance communication with autonomous systems in varying environments, generate profit, and drive business transformation.

Steps

12.1 Data Collection and Integration

- Collect and integrate traveler data from internal data sources, focusing on available information such as browsing behavior on the website, and user reviews and feedback.
- Clean and pre-process the data to ensure its consistency and completeness for further development.

12.2 Customer Preference Prediction

- Use GPT-3 to analyze and process the integrated data. Through natural language processing (NLP), extract customer sentiment and preferences from their reviews, feedback and other service data.

- Build a customer profiling model according to their preference to predict travel preferences such as favorite types of attractions, travel styles (e.g., self-driving, group tours), accommodation preferences, etc.

12.3 Travel Plan Recommendation

- Based on customer profiling model, generate personalized travel plans. The plans include recommended attractions, accommodations, dining options, transportation methods and the corresponding travelling price, etc.
- Ensure the travel plans consider seasonal factors, local events, and specific customer needs to provide highly relevant and attractive recommendations.

12.4 Generating Animated Visualizations (DALL-E)

- Use DALL-E to create a series of images based on the generated travel plans. These images can include attraction photos, accommodation diagrams, route maps, etc.
- Convert these images into animated visualizations that dynamically display the travel plan's process and details, such as some important time spots during the trip, transporting from one place to another, or the scenario in which users are taking a causal walk in a famous street. It will give customers a more intuitive understanding of the entire trip and a higher expectation about the trip.

Note: For the image animation process, we will use tools other than DALL-E. For example, an [AI tool like Appy Pie's AI Image to Animation Maker](#) can be utilized.

12.5 System Integration and Presentation

- Integrate the generated travel plans and animated visualizations into the travel recommendation platform. Users can view all those content through the platform interface. Additionally, provide preference options such as "more natural landscapes or historical landmarks" and "more free time or tighter schedules" that users can adjust to create new customized plans. This interactive feature allows users to fine-tune their travel itineraries according to their specific preferences, ensuring a more tailored and satisfying travel experience.
- Provide a user feedback mechanism, allowing users to rate and provide feedback on the recommended travel plans and visualizations to further optimize the recommendation system.

13. Assumptions

- Integration with third-party APIs for hotel, flight, and car data will be required.
- Design mockups and user interface (UI) elements will be provided separately.
- Content for static pages will be provided by the client.

Technology:-

Web Platform-

Frontend on - React js

Backed on - Python, Django framework. D.B- Mysql

Mobile App-

Flutter based cross platform mobile app for Android and IOS Platform

Timeline:- 90 Days

Budget - AUD \$ - 4700/-

Milestones

S.N	Detail	Duration	Date
1	Project setup, project documentation	3 Days	
2	2. Home page, 3. Static pages, (Web & Mobile)	20 Days	23/06/24
3	4. Hotels 5. Flights (Web & Mobile) 12. Ai Part 12.1 Data Collection and Integration 12.2 Customer Preference Prediction	20 Days	13/07/24
4.	6. Cars, 7. Activities, 8. Cruise booking (Web & Mobile)	20 Days	03/08/24

	12. Ai Part- 12.3 Travel Plan Recommendation 12.4 Generating Animated Visualizations (DALL-E)		
5.	8. Travel agents, (Web & Mobile) 9. Users, (Web & Mobile) 10. Admin Management (Web) 12. Ai Part- 12.5 System Integration and Presentation	27 Days	30/08/24
		90 Days	

Development Process:-

1. Figma ui prototype of the whole system
2. UI- UX pages
3. Development and integration testing
4. Complete system testing
5. Deployment

Required from client side:-

1. Server to deploy the application
2. Ip or domain
3. 3rd party sdk / apis
4. Payment gateway
5. Android and ios app store login

Support:-

There will be 30 Days post development free of cost support for bug fixing or any issue in the existing system.

Thanks & Regards
Parvesh Saini

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