

City University of Hong Kong
2024-2025 Semester A
CS3343 Software Engineering Practice

Release Summary
Group 38
Hong Kong Journey Planner

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1. Overview

Hong Kong Journey Planner is an application designed to enhance the travel experience for users exploring Hong Kong. The application has undergone three releases, each contributing unique features, upgrades, and bug fixes.

2. Progress

2.1 Release 1.0:

This is the first prototype of our product. It supports simple filters that allow users to specify their preferences and then recommend relevant scenic spots based on their inputs. The core features of this release include:

Functions:

1. **Date Input:** Users can input their travel start and end dates in the format yyyy-MM-dd. The application validates these dates to ensure they are correctly formatted and that the end date is not before the start date.
2. **Region Selection:** Travelers can choose from four distinct regions: Hong Kong, Kowloon, New Territories, and Outlying Islands. This feature helps narrow down recommendations to specific areas of interest.
3. **Tags for Customization:** Users can enter tags such as "natural," "cultural," or "activity" to filter attractions according to their interests. If users prefer not to specify any tags, they can simply press Enter to skip this step.

Patches:

- 1.1 Minor bug fix, simple prototype.
- 1.2 Improved database, with data crawled from Trip.com, containing information about comments and review scores.
- 1.3 Added singleton pattern for the DataLoader classes, added interface for Recommenders and UserPreferences.

2.2 Release 2.0:

The second release of our application introduces a range of new functions and enhancements that significantly improve user experience and functionality.

Functions:

- 1. Trip planning:** Users can plan their trips using the TripPlanner class, which generates trip recommendations based on user preferences.
- 2. Route Generation:** The SelectionManager class processes the trip recommendations and generates a travel route.
- 3. Error Handling:** The application includes error handling to catch and display any exceptions that occur during execution.
- 4. Interface:** The application displays the user choice and suggests users to perform actions in the command-line based interface.

Patches:

- 2.1** Organized Java files into directories to enhance readability and maintainability of the codebase.
- 2.2** Improved the database to include shopping mall recommendations, along with the capability to generate routes that plan the shortest path to traverse all selected attractions.
- 2.3** Implemented additional design patterns, including the Factory and Builder patterns, to improve code structure and facilitate easier future enhancements.

2.3 Release 3.0:

Release 3.0 brings significant enhancements and improvements to the application, focusing on user interaction, design principles, and code quality.

Functions:

- 1. Command Pattern Implementation:** Introduced the Command Pattern to streamline user interactions, enabling users to easily add or remove attractions from their itineraries.
- 2. Test Case Generation:** Established a robust framework for test case generation, ensuring comprehensive coverage of critical functionalities.
- 3. Code Refactoring:** Conducted extensive code refactoring to improve readability and organization.

Patches:

- 3.1** Implemented the Command Pattern for managing user actions, allowing seamless addition and removal of attractions from user itineraries.
- 3.2** Restructured design patterns throughout the codebase to improve adherence to software design principles, enhancing code maintainability.
- 3.3** Executed extensive code refactoring to enhance code clarity and organization, reducing complexity and improving overall performance.
- 3.4** Final checking and minor bug fixes.

3. Release Date:

Version	Release Date
1.0	2024.10.15
2.0	2024.11.07
3.0	2024.11.17
3.4	2024.11.25