

# Acceptance Test Deliverable (ATD)

## Best Bike Paths (BBP)

Acceptance Testing Report

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## 1 Identification of the Analyzed Project

The evaluated prototype is a Best Bike Paths (BBP) web application focused on cycling route exploration and community-shared path reports. The evaluation was conducted from a user and acceptance-testing perspective, with emphasis on the correctness of key user flows, clarity of the interface, and consistency between implemented features and the accompanying documentation.

### 1.1 Project Information

<b>Repository:</b>	<a href="https://github.com/euorrl/HuZhang">https://github.com/euorrl/HuZhang</a>
<b>Deployed Prototype:</b>	<a href="https://hu-zhang.vercel.app/">https://hu-zhang.vercel.app/</a>
<b>Authors:</b>	Hu, Zhang (as stated in the repository)
<b>Reference Docs Considered:</b>	RASD, DD, README and repository contents

### 1.2 Prototype Overview

From the deployed interface, the prototype is organized into clear navigation sections (e.g., Home, Explore Routes, Community, My Trips, Report Path). Public users can browse routes and community reports, while restricted actions require authentication. The overall UI design is polished, and the information architecture is easy to understand at first glance.

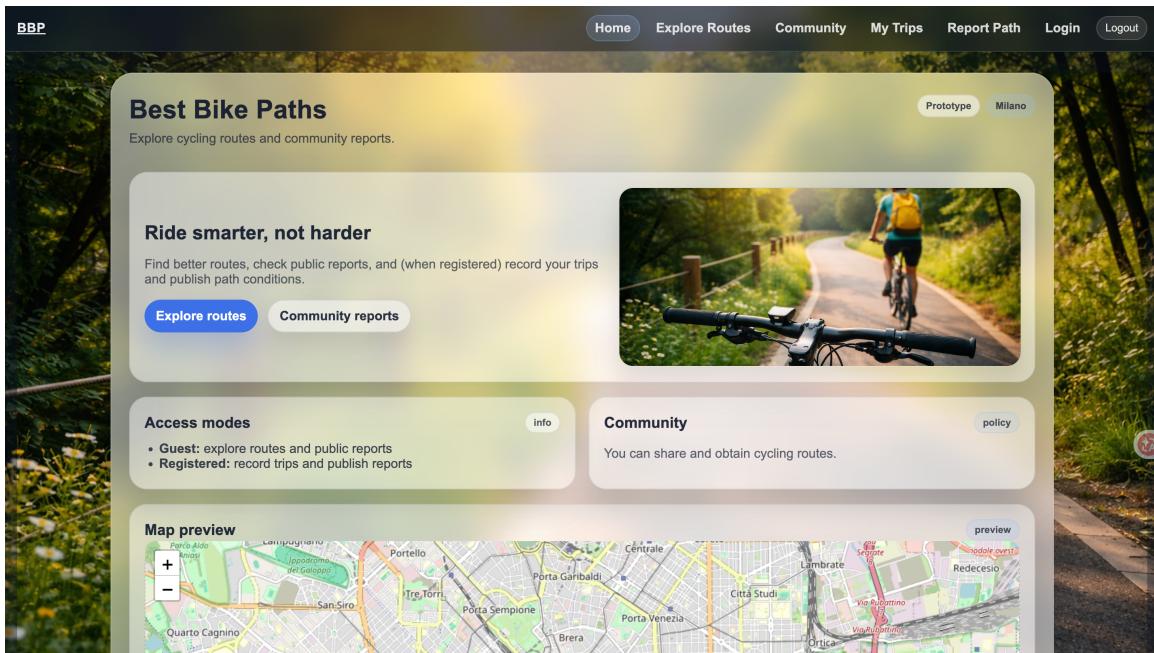


Figure 1: Home page of the evaluated BBP prototype.

## 2 Installation Setup

### 2.1 Environment and Approach

Acceptance testing was primarily performed through the deployed web version of the system. In addition, the repository structure and available documentation were inspected to understand expected usage, system constraints, and possible dependencies affecting the evaluated features.

## 2.2 Installation / Setup Steps

The following steps were performed:

1. Opened the deployed prototype URL in a desktop browser.
2. Tested public features without logging in (read-only flows).
3. Tested authentication flow to access restricted areas.
4. Verified Community section behavior and map visualization.
5. Attempted route searching by manually entering origin and destination in Explore Routes.

## 2.3 Issues and Inconsistencies Found During Setup

During the evaluation, one key usability inconsistency was identified: the Explore Routes interface suggests that users can manually enter an origin and destination to obtain results, but in practice no results were returned in our tests. By contrast, routes already published in the Community section were displayed and could be explored correctly. This indicates that the prototype's route exploration functionality may depend on pre-existing community trip data rather than on dynamic route computation, which should be clearly stated in the documentation to align user expectations.

# 3 Acceptance Test Cases and Outcomes

## 3.1 Test Design Rationale

Test cases were derived by combining (i) the expected capabilities described in the reference documents, (ii) the features observable in the deployed UI, and (iii) additional realistic user scenarios. The objective was to validate the most representative end-to-end flows: public browsing, authentication gating, community route exploration, and route searching behavior.

## 3.2 Acceptance Test Summary Table

ID	Test Case	Expected	Observed	Outcome
AT-1	Public browsing: access Home/Explore Routes/Community without login.	Pages accessible.	Accessible; content visible.	PASS
AT-2	Access control: restricted actions require login.	Login required.	Login is enforced before restricted actions.	PASS
AT-3	Explore Routes: manual origin/destination search returns results.	Route results displayed.	No results returned for manual input.	FAIL
AT-4	Community routes: list + map preview + details.	Routes displayed and selectable.	Routes list works; map preview and details work.	PASS
AT-5	Usability: navigation clarity and UI consistency across pages.	Clear, consistent UI.	Navigation bar is clear; sections are well separated; UI is polished.	PASS

## 3.3 Detailed Acceptance Test Cases

### 3.3.1 AT-1 Public Browsing

The system should allow a guest user to access the main information pages without authentication. In our evaluation, the Home page and Community information were accessible immediately. This behavior supports discoverability and allows first-time users to understand the value of the system before creating an account.

### 3.3.2 AT-2 Access Control and Login Requirement

The prototype should prevent unauthenticated users from performing sensitive actions, such as publishing content or accessing personal sections. In the evaluated system, the login requirement is applied consistently, which is a positive sign of robustness and a good security baseline for a prototype.

### 3.3.3 AT-3 Explore Routes With Manual Input

The Explore Routes page provides an interface for entering an origin and destination, which naturally leads users to expect route results. However, when manually entering origin and destination, no route results were returned. This is a critical acceptance failure for the feature as presented in the UI. The observed behavior suggests that the prototype may rely on already published community trips as its primary data source for route exploration.

### 3.3.4 AT-4 Community Route Exploration

In contrast to AT-3, the Community section displayed existing routes and allowed users to inspect route details. The list of published items was visible and selectable, and the map view provided a clear preview of each route. This confirms that the system can successfully present and visualize routes when they exist in the community dataset.

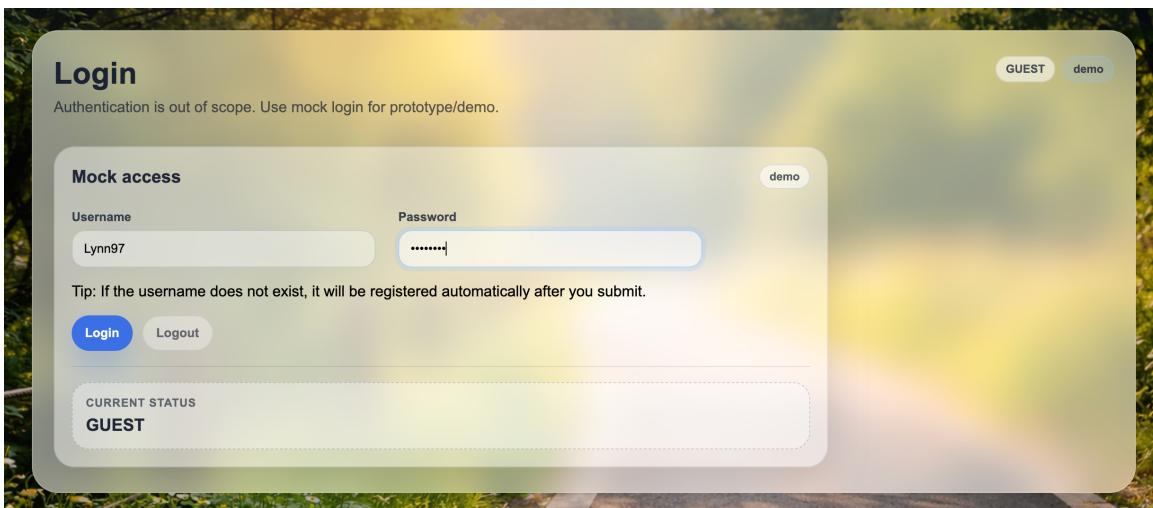


Figure 2: Login entry point shown when accessing restricted actions.

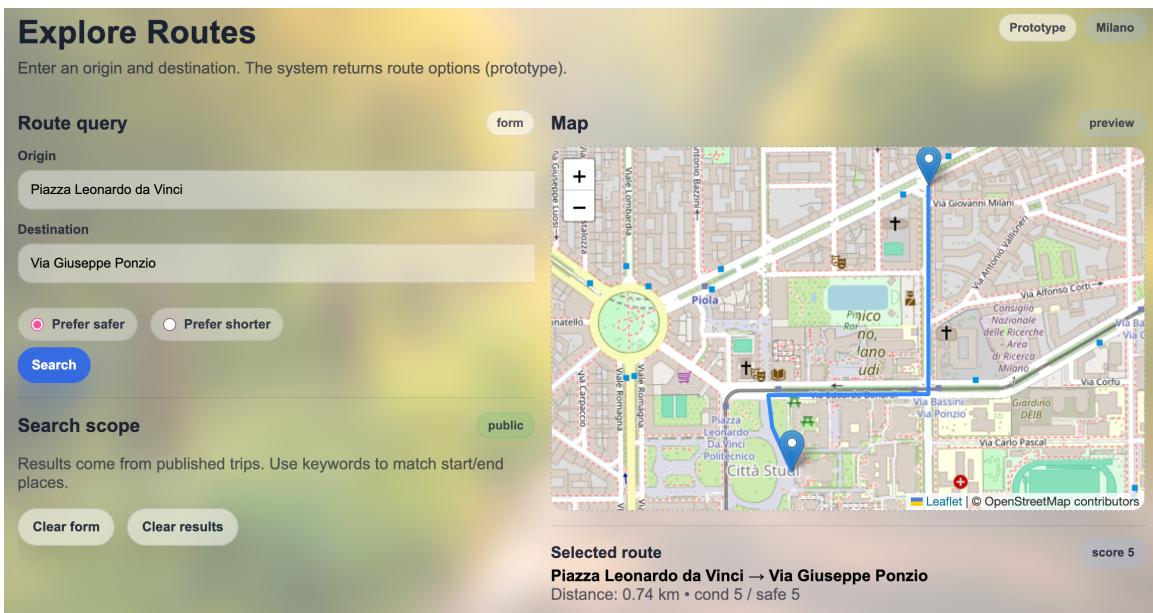


Figure 3: Explore Routes page: manual origin/destination input yields no results in our tests.

### 3.3.5 AT-5 Usability and Navigation

The overall UI quality is a strong point of the evaluated prototype. The navigation bar is clear, the separation between Home, Explore Routes, and Community is consistent, and the interface appears robust and strict in requiring login for user-specific actions. This improves user trust and reduces the likelihood of unintended operations.

## 4 Additional Observations on Documentation and Code Quality

### 4.1 Strengths

The evaluated prototype presents a visually polished UI with clear navigation and well-structured pages. The access model is intuitive: public users can browse community information, while registered users can access additional functionality. This strict separation is implemented consistently and contributes to a perception of reliability and rigor.



Figure 4: Community page: published routes are listed and can be explored with map preview.

## 4.2 Weaknesses

A key weakness is the mismatch between the Explore Routes UI and its observed behavior. Because manual origin/destination input does not yield results, users may interpret the feature as broken. If this behavior is an intentional prototype constraint (e.g., route exploration relies on community-published trips), it should be explicitly documented and clearly communicated in the interface text to prevent misunderstanding.

Additionally, documenting the dependency between route results and the presence of community data would make installation/testing more predictable for evaluators and improve transparency of system limitations.

## 5 Effort Spent

Team Member	Hours
Kaifei Xu	2.5
Shinuo Yan	2
Yanglin Hu	3

## 6 References

- Evaluated repository: <https://github.com/euorrl/HuZhang>
- Deployed prototype: <https://hu-zhang.vercel.app/>
- Reference documents consulted: RASD and DD provided by the development team