

Vocabulary

Core Components

- Museum Map: A digital map of the museum, displaying exhibits, routes, and user location.
- Exhibit: A physical or virtual display in the museum, with associated details (e.g., description, audio transcript).
- Route: A calculated path between points in the museum, optimized for time, distance, or traffic.
- Offline Mode: A system state allowing access to pre-downloaded content without internet connectivity.
- GPS Signal: Technology used for real-time location tracking.
- Point: Exhibits, Toilets, Exits.

User Actions

- Download for Offline Use: User-initiated action to save exhibit or map data locally.
- Search by Keyword/Category: User inputs to filter exhibits (e.g., "Art," "History," or free-text terms).
- Navigate: User requests start navigating on the displayed calculated route to a destination.
- Manage Offline Content: User access to delete or update downloaded content.
- Cancel Navigation: User action to stop active route guidance.
- Personalized Route Generation: User-triggered route creation based on saved preferences.
- Modify Route: Add or remove points from a calculated route.

System Actions

- Synchronize Data: Automatic upload of user activity (e.g., favourites, ratings) when connectivity resumes.
- Display Notification: System alerts (e.g., "Offline mode activated," "No route available") on a screen pop-up.
- Calculate Route: Algorithmic determination of optimal paths between points.
- Indicate Limited Functionality: Warn users about unavailable real-time features in offline mode.

Technical Terms

- Pre-Downloaded Content: Exhibits, maps, or audio transcripts saved locally for offline access.
- Storage Space: Device memory required/used for offline content.
- Real-Time Features: Functionality requiring internet (e.g., live traffic updates).
- User Preferences: Saved settings (e.g., exhibit interests, preferred historical era) for personalized routes.
- Update Outdated Content: Refresh pre-downloaded exhibits/maps when online.
- Storage Usage: Detailed view of offline content size per category.
- Limited Functionality: No traffic information, and all outputs to the system are synced when internet connectivity is restored.

Navigation & Routing

- Estimated Arrival Time: Predicted time to reach a destination.
- Custom Route: User-defined start/end points for navigation.
- Traffic Levels: Real-time crowd data used for route optimization.
- Inaccessible Destination: A closed or blocked exhibit with alternative suggestions.

User Interface Elements

- Search Bar: Input field for exhibit keyword/category searches.
- "More Details" Button: Expands exhibit information and audio options.
- "Retry" Option: Prompts reattempt of online actions after connectivity loss.