

# Trip Service API Documentation

## Overview

The Trip Service provides endpoints for managing trip-related functionalities, such as trip planning, recommendations, and feedback.

## Endpoints

### Plan Trip [POST /api/trip/plan]

Plan a trip based on user preferences and location data.

#### Request

```
POST /api/trip/plan
Content-Type: application/json

{
  "userId": "user123",
  "destination": "Paris, France",
  "startDate": "2024-05-15",
  "endDate": "2024-05-20",
  "budget": 1500
}
```

- **userId**: (Required) The ID of the user planning the trip.
- **destination**: (Required) The destination for the trip.
- **startDate**: (Required) The start date of the trip (YYYY-MM-DD).
- **endDate**: (Required) The end date of the trip (YYYY-MM-DD).
- **budget**: (Optional) The budget for the trip (in USD).

#### Response

Upon successful trip planning request, the server responds with a status code of **200 OK** and returns the trip itinerary.

```
HTTP/1.1 200 OK
Content-Type: application/json

{
  "itinerary": {
    "destination": "Paris, France",
```

```
"startDate": "2024-05-15",
"endDate": "2024-05-20",
"activities": [
  {
    "name": "Eiffel Tower Tour",
    "date": "2024-05-16",
    "time": "10:00",
    "duration": "2 hours"
  },
  {
    "name": "Louvre Museum Visit",
    "date": "2024-05-17",
    "time": "09:00",
    "duration": "3 hours"
  }
]
}
```

## Get Recommendations [GET /api/trip/recommendations]

Get recommendations for destinations, activities, and itineraries based on user preferences and historical data.

### Request

```
GET /api/trip/recommendations?userId=user123&budget=2000
```

- **userId**: (Required) The ID of the user for whom recommendations are requested.
- **budget**: (Optional) The budget available for the trip (in USD).

### Response

Upon successful recommendation request, the server responds with a status code of **200 OK** and returns a list of recommended destinations, activities, and itineraries.

```
HTTP/1.1 200 OK
Content-Type: application/json

{
  "destinations": [
    {
      "name": "Rome, Italy",
      "description": "Explore ancient ruins and Renaissance art."
    },
    ...
  ]
}
```

```

    {
      "name": "Tokyo, Japan",
      "description": "Experience vibrant culture and modern technology."
    }
  ],
  "activities": [
    {
      "name": "Colosseum Guided Tour",
      "destination": "Rome, Italy",
      "duration": "3 hours"
    },
    {
      "name": "Tsukiji Fish Market Visit",
      "destination": "Tokyo, Japan",
      "duration": "2 hours"
    }
  ],
  "itineraries": [
    {
      "destination": "Rome, Italy",
      "startDate": "2024-06-10",
      "endDate": "2024-06-15"
    },
    {
      "destination": "Tokyo, Japan",
      "startDate": "2024-07-01",
      "endDate": "2024-07-07"
    }
  ]
}

```

## Provide Feedback [POST /api/trip/feedback]

Provide feedback on trip plans and recommended destinations.

### Request

```

POST /api/trip/feedback
Content-Type: application/json

```

```

{
  "userId": "user123",
  "tripId": "trip456",
  "rating": 4,
  "comment": "Great trip overall. Enjoyed the activities and accommodations."
}

```

- **userId**: (Required) The ID of the user providing feedback.

- **tripId**: (Required) The ID of the trip for which feedback is provided.
- **rating**: (Required) The rating provided by the user (1 to 5, with 5 being the highest).
- **comment**: (Optional) Additional comments or feedback provided by the user.

## Response

Upon successful feedback submission, the server responds with a status code of **204 No Content**.

```
HTTP/1.1 204 No Content
Content-Length: 0
```