# Analysis & Design

## System Architecture ( overview of system)

The system architecture is the process of defining elements of the website such as architecture, modules, interfaces, and data for a project to satisfy project requirements.

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Figure (1) System Architecture

It is used to display the structure and operations in a project. In addition, to analyse and view all project components such as (network - personal computer - server and used software). The aim of an enterprise architecture diagram is to determine how project can effectively achieve its current and future objectives. The system architecture often displays major project processes such as users’ login to website and select travel data, data exchange between major components of the system, the finally, user can view the travel planner.

## Use Case Diagram:

A use case diagram is the simplest type of UML diagrams. It is used to represent user's interaction with the system. These interactions are represented by a set of actions, denoted as use cases, while the users who will interact with these use cases denoted as actors. In this system, the users of the application are tourists. They can perform a set of actions such as, enter arrival and departure cities, select airline class, activities preference and view the generated travel planner. The system will automatically construct day-by-day itinerary. *See Figure (2)*

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Figure (2) Use Case Diagram

## Sequence Diagram:

A sequence diagram shows the interactions between travel planner system objects arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the system scenario.

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Figure (3) Sequence Diagram

Sequence diagrams typically, are associated with use case realizations in the logical view of the system under development.

In Figure (3), first, user allows to access to travel planner system using to login the system. Then request travel planner to plan the itinerary based on the user inputs which includes the city denatured and arrival, dates, number of people, flight class, activities preferences. Finally, the system will generate a PDF copy of the itinerary and it can be sent to the user via email.