

Class Diagram Report

The Hotel Property Management System (HPMS) is designed using a multiple-layer architecture, which consists of an application layer, business logic layer, domain objects layer, and a persistence layer. Briefly speaking, the application layer is concerned with the graphical user interface; the business logic layer is concerned with back-end computations; the domain layer is concerned with the objects of the system; and the persistence layer is concerned with storing and retrieving data. The HPMS centers around the Reservation Class. It has an aggregation relationship with the Room Parent-Class as well as the Customer subclass. The Room Parent-Class has six subclasses representing the various types of hotel rooms being offered. The Customer Class extends the Profile Parent-Class. It also has a one-to-many association with the PaymentMethod Class. The PaymentMethod Class is separated from the Customer Class to follow the Single Responsibility Principle. The Employee Class is also a Child-Class of the Profile Class. There are two business logic Classes – ReservationLogic and SearchingLogic – that are associated with the Reservation Class as they serve as a critical backbone to the Reservation Class.

This is the current structure as of Iteration 1. Although the overall architecture will stay the same, it is expected that certain adjustments may need to be made in further iterations as the system gets more complicated with added functionality.