1. ***Introduction***
2. What is your application?

The application is a hotel management system. It allows the hotel to manage it’s rooms and bookings. The system can add tooms, book rooms, and print available rooms.

1. How to run the program?

To run the program the phyton needs to be installed on the computer. The program can be run using windows built-in command prompt or Python’s.

1. Hoe to use the program?

The program prompts the user to enter their full name. If the user enters ‘stop’ the program ends. Otherwise, it creates a new guest with the entered name. The user then Is asked to enter their check-in and check-out in a format of YYYY-MM-DD. The program then prints available rooms. The user can enter the room they want to book it. If the room is available and the dates are valid, the room is booked.

1. ***Body/Analysis***
2. Explain how the program covers functional requirements.

The program implements the functional requirements through several classes and methods. The *hotel* class manages the rooms and bookings. It uses the *Room factory* to create rooms of different types. The *room* class represents a room in the hotel and has methods to book the room. The *Guest* class represents a guest of the hotel. The program uses a while loop to continuously ask the user for input until they decide to stop.

1. ***Results and summary***
2. Results

* Program successfully implements hotel management system.
* It allows the hotel to manage its rooms and bookings efficiently.
* One challenge I faced during the Implementation, was writing, and reading to and from a file.
* Date management.

1. Conclusion and how it would be possible to extend the application.

The coursework has achieved the goal of designing and implementing a hotel management system. The result of this work is a functional program that can manage hotel rooms and bookings. The program could be extended in the future to handle more complex scenarios, such as booking multiple rooms at once or handling cancellations. It could also be improved by adding a graphical user interface. Also, the program could work along side a database to store user information and other data.