California State University Fullerton

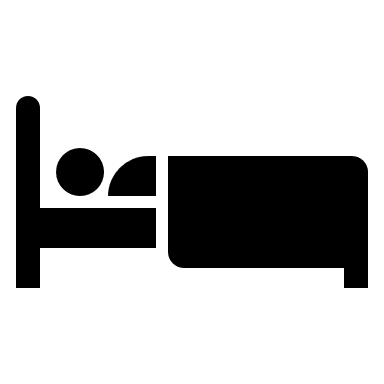
CPSC 462



Object Oriented Software Design

Risk List & Risk Management Plan

for the



Hotel Room Reservation

System

|  |  |  |
| --- | --- | --- |
|  | **Allen Rivas** |  |
|  | Chief Technical Officer (CTO) |  |
|  | [allen.rrivas30@csu.fullerton.edu](mailto:allen.rrivas30@csu.fullerton.edu) |  |

Revision History:

| Version | Date | Summary of Changes | Author |
| --- | --- | --- | --- |
| 1.0 | March 23, 2021 | * First draft. To be refined primarily during the elaboration phase. | Allen Rivas |
| 1.1 | April 27, 2021 | * Updated this draft with a new logo and the Metric used to Measure column in the Risk List and Risk Management Plan. | Allen Rivas |
| 1.2 | May 16, 2021 | * Updated this draft by adding change bars to indicate the changes that have been made and the Metric used to Measure column in the Risk List and Risk Management Plan. | Allen Rivas |

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# Risk Identification and Mitigation Plan

| No. | Title | Description | Weight | Category | Mitigation Approach | Metric used to Measure |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | Loss of Power | **If** the power goes out, **then** the system and other hotel equipment will unusable, **resulting in** a loss of $20,000 in lost revenue. | High | Business | To reduce loss of power, implement a power backup generator resulting in a cost of $10,000 per month. | Having a backup power generator, a power outage is reduced by 60%. Cost is reduced once the risk is known. Measuring is done monthly; count how many times a loss of power happens per month. A low value would be optimal, since risk should be avoidable.  Monitoring this risk has indicated that there a medium chance of it occurring, power outages are not that common, but can also happen at any moment. |
| 2. | Malware | **If** a malware attack occurs, **then** the system and all its data will be unavailable **resulting in** $200,000 per day in lost revenue. | High | Technical | To reduce the potential of a malware attack, have backup database servers and/or better authentication system resulting in a cost of $10,000 per month. | Having improved security and backup servers, malware attacks can be reduced to 70%. Measuring is done daily; count how many times a malware attacks occurs per day. A zero to low value would be optimal, risk should be avoidable.  Monitoring this risk has indicated that there would still be a high chance of some sort of malware attack that could occur. |
| 3. | Low Skill/Knowledge Level Staff | **If** staff members are not skillful, **then** the system will be inoperable, and its data will not be up to date with incoming traffic **resulting in** $5,000 per day in lost revenue. | High | Resource | To reduce the hiring of low knowledgeable workers, higher high knowledgeable workers, resulting in a cost of $10,000 per week. | Having higher skillful workers, the loss of incoming traffic can be reduced to 85%. Measuring is done monthly; count how many new workers have a low skill cap per month. A low value would be optimal, risk should be avoidable.  Monitoring this risk has indicated that it is something that has a small chance of occurring, would happen during a recruitment of new staff. |
| 4. | Hotel Rooms Unavailable | **If** hotel rooms are unavailable, **then** the system will be uncappable to make reservation **resulting in** a $50,000 per day in lost revenue. | High | Schedule | To reduce the amount of unavailable rooms, make reservations cost more, resulting in a gain of $75,000 per day in revenue. | Having raised the price on rooms that are available incoming reservation make a gain of 45%. Measuring is done daily; count how many hotel rooms are unavailable per day. A zero to low value would be optimal, risk should be avoidable.  Monitoring this risk has indicated that there is a medium to high chance of this still occurring based on how big the hotel branch is that is provided this software. |