California State University Fullerton

CPSC 462



Object Oriented Software Design

Risk List & Risk Management Plan

for the



Hotel Reservation

System

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| --- | --- | --- |
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Revision History:

| Version | Date | Summary of Changes | Author |
| --- | --- | --- | --- |
| 1.0 | 2021-10-18 | * Initial Release | Josh Ibad |
| 2.0 | 2021-11-15 | * Changed role to Chief Software Architect | Josh Ibad |

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# Risk Identification and Mitigation Plan

| No. | Title | Description | Weight | Category | Mitigation Approach | Metrics |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | System Crash | If the hotel reservation system crashes then the hotel will be unable to continue business resulting in losses in revenue surmounting to well above $1000 per day, depending on RevPAR and number of rooms still available. | 1 | Business | System backups can be performed which will cost around $3 per GB of data stored, and spinning up a cloud server to run the service can cost around $2+ per node per day. | System uptime |
| 2 | Security breach | If malicious actors find and exploit vulnerabilities in the public-facing interfaces of the system then they can hack the system resulting in interruption of business operations. This can be tantamount to a crash, with losses surmounting well above $800 per day, depending on RevPAR and number of rooms still available. | 2 | Technical | Regular security assessments should be performed. A pentest can cost around $4k-$10k for systems of small scale. | Count of vulnerabilities, and risk of vuln's |
| 3. | Slowdown under user load | If the hotel reservation system encounters large user load then the system can slow down resulting in poor customer experience and thus losses in revenue. Can cost around $100 a day if high, and a steady decrease in customers if left unmanaged. | 2 | Resource | High spec servers should be used and load balancing can be utilized. This may cost well above $1k-$3k per month for each upgraded server. | System throughput or speed. |
| 4. | Erroneous input | If the hotel manager inputs wrong information then users when they dont get what was expected resulting in losses in revenue. Lost business can cost $50 a day if not severe. | 5 | Business | Errors can be prevented through good UI design and confirmation messages. Added development cost within $1.6k if not already done. | How often erroneous input occurs. |