**Risk Management Report**

**Commerce Bank Web Application**

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**Team Members**

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Document Control

**Change History**

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| --- | --- | --- |
| **Revision** | **Change Date** | **Description of changes** |
| V1.0 | 3/14/2021 | Initial release |

**Document Storage**

This document is stored in the project’s Git repository at: https://github.com/UMKC-CS451R-Spring-2021/semester-project-group-3-commerce.

**Document Owner**

William Keke is responsible for developing and maintaining this document.

Identified Risks

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| --- | --- | --- | --- | --- |
| **Rank** | **Risk** | **Probability of Loss** | **Size of Loss** | **Risk Exposure** |
| 1 | WebApp does not consistently connect to the database. | Moderate | Catastrophic | Extreme Risk |
| 2 | Password fails to encrypt before entering the database. | Unlikely | Major | High Risk |
| 3 | Developers need to practice more with ASP.NET than initially expected. | Almost Certain | Minor | High Risk |
| 4 | Documented hours of effort expected for tasks are inaccurate. | Likely | Minor | High Risk |
| 5 | Forget to encrypt/hide connection string. | Unlikely | Major | High Risk |
| 6 | Accidentally pushing an unfinished/fundamentally flawed build to master. | Rare | Major | High Risk |
| 7 | Not enough budget or time to deliver a finished product. | Rare | Major | High Risk |
| 8 | Product fails to meet the expectations of the customer. | Rare | Catastrophic | High Risk |
| 9 | Requirements change too often and delay development. | Unlikely | Moderate | Moderate Risk |
| 10 | More web-pages are needed than initially expected. | Unlikely | Moderate | Moderate Risk |
| 11 | Differing naming, styling, or scripting conventions among web-pages. | Almost Certain | Negligible | Moderate Risk |
| 12 | Application front-end isn’t properly tested on all device viewports resulting in unwanted visual artifacts. | Moderate | Negligible | Low Risk |
| 13 | Project team approaches problems with an anti-pattern response. | Unlikely | Negligible | Low Risk |

Risk Response Plan

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| --- | --- | --- |
| **Risk ID:** 1 | **Title:** *Improper database connection* | **Origination Date:** *3/13/2021* |
| **Status:** *Contingent* | | **Originator:** *Benaiah Kilen* |
| **Description:**  *This risk refers to the probability that the web application will improperly connect to the database. The consequences of this risk include: failure to connect to the database and its contents, an inability to carry out tasks within the application (logging in, notifying users, etc.), and failure to deliver a functioning product.* | | **Assessment:** *Qualitative* |
| **Probability:** *Moderate* |
| **Consequences:** *Catastrophic* |
| **Risk Exposure:** *Extreme Risk* |
| **Owner:** *Zach Gharst, Benaiah Kilen* | | |
| **Risk Response Alternatives:**  *Extensive testing to ensure the connection string is properly defined and the database’s server is open to connect to. Would require us to re-analyze how we connect to the database, and at worst would require us to re-analyze most of our code.*  *Integrating the required tables in a different way than we had used initially. Requires effort to research and implement a new method, and we are at risk of the new method not working/being compatible.* | | |
| **Risk Response Plan (Activities & Milestones)** | | |
| **Date** | **Actions** | **Responsibilities** |
| 3/13/2021 | *Run tests on project to ensure that database is connected. Make adjustments if not.* | *Tester - Runs tests to check if database is connected.*  *Project Manager - calls emergency meeting if needed*  *Database Administrator & Developers - Make any needed adjustments to fix issues* |
| End of each iteration | *Recheck that database still connects to frontend of application. Immediately address if not.* | *Tester - Runs tests to check if database is connected.*  *Project Manager - calls emergency meeting if needed*  *Database Administrator & Developers - Make any needed adjustments to fix issues* |
| **Plan Status** | | |
| **Date** | **Status** | |
| 3/13/2021 | *Currently no issues with database connectio*n | |
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| **Resources:** *Project team* | | |

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| **Risk ID:** 2 | **Title:** *Password fails to encrypt before entering the database*. | **Origination Date:**  *03/13/2021* |
| **Status:** *Identified* | | **Originator:** *Atticus Parris* |
| **Description:**  *User’s password fails to encrypt before entering database. Causes user privacy to become vulnerable. Puts user at risk of having personal information stolen.* | | **Assessment:** *Qualitative* |
| **Probability:** *Unlikely* |
| **Consequences:** *Major* |
| **Risk Exposure:** *High Risk* |
| **Owner:** *Zach Gharst, Benaiah Kilen* | | |
| **Risk Response Alternatives:** *Monitor database contents. Create tests to ensure password encryption.* | | |
| **Risk Response Plan (Activities & Milestones)** | | |
| **Date** | **Actions** | **Responsibilities** |
| 03/13/2021 | *On implementation of passwords being hashed into the database, tests are performed to ensure that the process works as intended.* | *Database Administrator - properly implement password hashing*  *Tester - run tests to ensure password hashing works properly* |
|  |  |  |
| **Plan Status:** | | |
| **Date** | **Status** | |
| 3/13/2021 | *Password hashing has not been implemented yet* | |
|  |  | |
| **Resources:** *Database Administrator, Tester* | | |