CS 432  
Nepali-English Book of Mormon

Rochak Kunwar

# Version History

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| Version # | Author | Date | Summary |
| 1.0 | Rochak Kunwar | 12/13/2019 | Write the rough draft in paper and just a basic design how it should look like |
| 2.0 | Rochak Kunwar | 12/14/2019 | After analyzing all the possible risks, I wrote them in a .docx file. |
| 2.1 | Rochak Kunwar | 12/14/2019 | Since we are completing a project in a group, we did some grammatical changes in the document. Especially I to ‘we’. |
| 2.3 | Rochak Kunwar | 12/14/2019 | Grammatical correction |
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# Introduction

## Purpose Of The Risk Management Plan

## This document is a detail plan to identify risks, analyze risks, develop a response, and how to manage the response. This document will describe how the risk activities will be carried out. It will have a list of positive risks as well as the negative risks that may occur in the project lifecycle. Using this risk management plan, I will try to maximize the probability and effect of positive risk and will try to minimize the probability and consequences of adverse events to project objectives.

# Risk Management Procedure

## Process

## For the collection of different types of possible risks, we used several methods, each of those are listed below.

## The first thing we did was to go through our requirement documentation to analyze if the requirements are more than what can be done in 10 weeks time, and checked design document if there are places, we can have technical difficulty.

## We brainstormed some of the problems that can occur because of our technical skill limitation, copyright issues, and availability of API.

## We did interviews with industry experts, colleagues, and mentor about the possible problem we could face and ways to solve them.

## We used State Diagram to visualize the flow of work and to find flaws in our design and to find the places where we underestimated the complexity.

## We also used our previous experience to predict some of the challenges we might face.

## We discussed with our mentor about our resource issues and made an alternative plan just in case if things do not go in the way we want.

## We researched on the internet for the possible cost and way to minimize it with free options.

## Risk Identification

## Academic:

## Our project is big, but it may not be interesting to get a good grade.

## 

## Personal:

## Because of the lack of suggestions and direction, we may lose our self-motivation.

## Future Opportunity:

## Since the project is very focused on one religious group, the future opportunity can be limited.

## 

## Technical Risk:

## No member of a team is highly skilled in this area. We may need lots of research time than we anticipated. There is no good designer in a group; all are developers.

## Cost Risk:

## There are enough open-source tools for development, but the cost for Webhosting and domain name can be high if we don’t find free/cheap Webhosting.

## Quality Risk:

## Free web hosting may bring advertisements on the website and decrease the quality of the software. Also, since everyone is developer graphics might be weak.

## Invisible Bugs Risk:

## There might be some invisible bugs because we won’t have time to test it completely.

## Scope Risk:

## The project looks doable in a given time frame, but still a lot.

## Legal Risk:

## We do not have a contract to use other company API. We requested to use JSON data created by another company at the very beginning of the project but haven’t got any response yet. Chances that it will take a long time are high.

## 

## Resource Risk:

## If we do not get approval to use their API, we have to create our own which will take a long time.

## Risk Analysis

### Qualitative Risk Analysis

### Academic:

### Threat: Uninteresting project and poor quality can cause grade loss.

### Probability: I and my team members have always been top-performing students in their class.

### Personal

### Threat: Low performance and weak guidance can lead to an incomplete project.

### Probability: It had never happened before that the project I lead is ever incomplete.

### Future Opportunity:

### Threat: If other companies think our project was useless than it may not buildup our portfolio. Probability: The chances that other companies won’t be interested in scripture app is pretty high.

### Technical

### Threat: Not having enough skill may slow down our project.

### Probability: Nobody is perfect; a lot of research is done to complete any project.

### Cost:

### Threat: We have a choice to either use free web hosting with ads, or paid Webhosting which will be ad-free. We will use paid, add free Webhosting. Even then it should not be that expensive.

### Probability: Those small expenses are predictable and common.

### Quality:

### Threat: Poor looking graphics can decrease the rating of our software.

### Probability: Everyone is a computer Science and Software Engineering student.

### Invisible Bugs:

### Threat: We will be doing unit testing, so there should not be a big bug to shut down the whole system.

### Probability: The project is not very big to make it difficult to solve bugs.

### Scope:

### Threat: A lot of work is redundant. We just must design and work on a few pages. So, it is good to have a better scope.

### Probability: We are trying to swallow a big bone, but it is doable.

### Legal

### Threat: We don’t have a legal contract to use their API. But we have found half of API from different sources.

### Probability: It happens a lot of time while doing small projects.

### Resources

### Threat: We don’t have all the API to make our project totally complete. But we have a backup plan to complete with whatever API we have so far.

### Probability: LDS church usually takes a long time to get back to the request of using their intellectual property.

### Quantitative Risk Analysis

### Academic:

### Threat: 0.1

### Probability: 0.1

### Personal

### Threat: 0.3

### Probability: 0.1

### Future Opportunity:

### Threat: 0.5

### Probability: 0.9

### Technical

### Threat: 0.7

### Probability: 0.9

### Cost:

### Threat: 0.2

### Probability: 0.9

### Quality:

### Threat: 0.7

### Probability: 0.7

### Invisible Bugs:

### Threat: 0.2

### Probability: 0.1

### Scope:

### Threat: 0.2

### Probability: 0.9

### Legal

### Threat: 0.1

### Probability: 0.9

### Resources

### Threat: 0.5

### Probability: 0.9

### Total Risk = ([Sigma from 1 to 10] Threat \* Probability) = 2.53

### If 1 is 10 then 2.53 is 25.3, which is moderately risky.

### [2] (This technique comes from the state of North Dakota Website)

## Risk Response Planning

### Academic: The probability that this threat may occur is pretty low and as well as this risk occurs only because of negligence. Even though it has very little risk we can mitigate this problem very easily by focusing more on a project. But we won’t be worried too much about it. We will simply accept it and try to mitigate it during the development phase.

### Personal: We will accept this risk. It has never happened that I lead some project and it is incomplete.

### Future Opportunity: Probability that this risk will happen is high as well as the threat. But our project is too narrow and maybe it is ok to focus on one specific area than in a broad area. We will accept it.

### Technical: We will mitigate this risk. Not having technical knowledge is not an option. We have to solve it no matter what.

### Cost: We will avoid this risk. Instead of using cheap paid Webhosting, we will use free web hosting.

### Quality: We will either have to accept it or transfer it. Since we cannot fail our project we will use UI from another 3rd party group.

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### Invisible Bugs: We don’t have time to do every testing. We will only do unit testing. So we will accept this risk.

### 

### Scope: The project is big and to complete the scripture app we need to have all the pages. We cannot decrease any pages from scripture so the only way is to accept this risk.

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### Legal: We will avoid this. We won’t even bother to get all the copyright. We will apply for the license to use API. But if we don’t get the APIs we will keep on working with whatever we have.

### Resources: We will accept it because we already know they will take the time to get back to us. We will just make our copy, tiny version, the demo of original API and keep working with it until we get the license.

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## Risk Monitoring, Controlling, and Reporting

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|  | Risk Monitoring (Activate when. .) | Controlling (how will you know it is functioning) | Reporting (inform stakeholder) |
| Academic | .. when Team member starts cutting down the requirements. | If all the deadlines for the checkpoint we considered are met. | I will inform my teammates and mentor that we are behind the schedules and some people are losing interest. |
| Personal | When I lose self-motivation | Show what we have achieved and what is our main goal. | I will take a small break and get back to work |
| Future opportunity | When we have no other feature than plain HTML. | A good feature and a lot of backend work will be done. | Mentor will be informed that we are working more in the backend to make it lucrative for companies. |
| Technical | When we get stuck in a problem | When we are learning new techniques and constantly solving problems. | We will ask our teachers/mentors on campus if we cannot find a solution to something. |
| Cost | When we have to pay for some service | When we can find alternatives for paid services | We will discuss in a group what can be possible alternatives. |
| Quality | When we cannot design good UI. | When we can get a good UI for relatively less money. | We as a group will search on the internet for a good template. |
| Bugs | When we will find some problem that causes the whole website to not work. | If the bugs get fixed | We will ask whoever designed that feature to work with a partner to fix it. |
| Scope | When we try to write each page. | Instead of writing each page; we would make it dynamic as much as possible. | We will ask each member to research on how it can be done. |
| Legal | When we will get a notice from someone saying we are doing things illegally | If we get a license from intellectual property. | We will talk to church intellectual property to speed up the process. |
| Resources | When we don’t get an API by the time we need it | If we get license and API by the time we need that API | Since the API we got from 3rd party and another API we need are structurally the same, just a different language, we will continue working with whatever we have. |

# Appendix A: References

# [1] A. Watt, *Project Management*, 14-Aug-2014. [Online]. Available: https://opentextbc.ca/projectmanagement/chapter/chapter-16-risk-management-planning-project-management/. [Accessed: 15-Dec-2019].

# [2] “Sample Risk Management Plan,” *nd.gov*. [Online]. Available: https://www.nd.gov/itd/sites/itd/files/legacy/services/pm/risk-management-plan-sample.pdf. [Accessed: 14-Dec-2019].

# [3] “Project Management,” *cdc.gov*, Sep-2009. [Online]. Available: https://www2a.cdc.gov/cdcup/library/newsletter/CDC\_UP\_Newsletter\_v3\_i7.pdf. [Accessed: 14-Dec-2019].

# [4] “Project Management,” *cdc.gov*, Sep-2009. [Online]. Available: https://www2a.cdc.gov/cdcup/library/newsletter/CDC\_UP\_Newsletter\_v3\_i7.pdf. [Accessed: 14-Dec-2019].

# [5] F. Usmani, "A Short Guide to Project Risk Management Plan," PM Study Circle, Jul. 2013 [Online] Available: [http://pmstudycircle.com/2013/07/a-short-guide-to-project-risk-management-plan/](https://content.byui.edu/items/fb36352f-44a4-473d-bb81-1e5a2ce36646/1/?.vi=file&attachment.uuid=24bae7eb-bb56-4895-9d5c-5510274d0f70)

# [6] F. Usmani, "What is Risk Management?," PM Study Circle, May. 2013 [Online] Available: [http://pmstudycircle.com/2013/05/what-is-risk-management/](https://content.byui.edu/items/fb36352f-44a4-473d-bb81-1e5a2ce36646/1/?.vi=file&attachment.uuid=c51a90b2-e6c6-48e7-9699-6306cbf69c4b)

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|  | Exceptional 100% | Good 90% | Acceptable 70% | Developing 50% | Missing 0% |
| Correct 40% | It is obvious that all aspects of the risk management process are fully understood. | Every aspect of the risk management template was correctly filled out. | One word was used incorrectly, one part of the template was not completed correctly, or one concept was not correctly demonstrated. | The plan demonstrates lack of understanding of one aspect of risk management. | The plan demonstrates a general lack of understanding of the risk management process. |
| Plan Detail 40% | Risks are completely indentified, fully described, and thoughtfully accounted for. | The collection of identified risks appears to be complete. | Nothing is missing and at least one aspect of the plan is well described. | At least one aspect of the plan is missing or poorly described. | Little effort has been put in the plan. |
| Plan Quality 20% | It seems highly likely that the plan will work as the author intended. | The plan is realistic and well thought-out. | No part of the plan is obviously unrealistic. | One aspect of the plan is far-fetched, is economically unfeasible, or will not work as expected. | Little effort has been put in the plan. |