

## **Risk**

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MIS576: Project Management

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July 12, 2020

### **Abstract**

Dell Technologies is a leading global technology company that provides technology solutions and services ranging from infrastructure to software and devices (Dell EMC, n.d.). As an intern at Dell Technologies, I got the opportunity to work on an interesting development project along with three other interns for twelve weeks. There were at least five different types of risks involved in the course of the project. The risks were identified and broken down using a Risk Assessment Matrix and Risk Breakdown Structure.

## **Introduction**

Dell Technologies, founded by current Chief Executive Officer (CEO) Michael Dell, is comprised of a family of businesses including Dell, Pivotal, RSA, Secureworks, Virtustream, VMware, and the recently acquired EMC in 2016, which marked the biggest tech deal in history (Dell Technologies, n.d.). These organizations are a collective force of innovative efforts with a strong presence in 180 countries worldwide. Dell Technologies provides infrastructure for organizations to expand on their digital assets, transform the Information Technology (IT) industry, as well as protect information (Dell EMC, n.d.). Their mission is to advance human progress by providing greater access to technology for people around the world (Dell Technologies, n.d.).

As an undergraduate student studying Computer Science at Worcester Polytechnic Institute, I got the unique opportunity to pursue a software engineering internship at Dell Technologies in the Storage Department, specifically on the Test Automation and Enablement team. The team works on high-performance storage systems and delivers next-generation tools to improve the efficiency of development operations as well as quality using advanced technologies, tools, and software engineering methodologies.

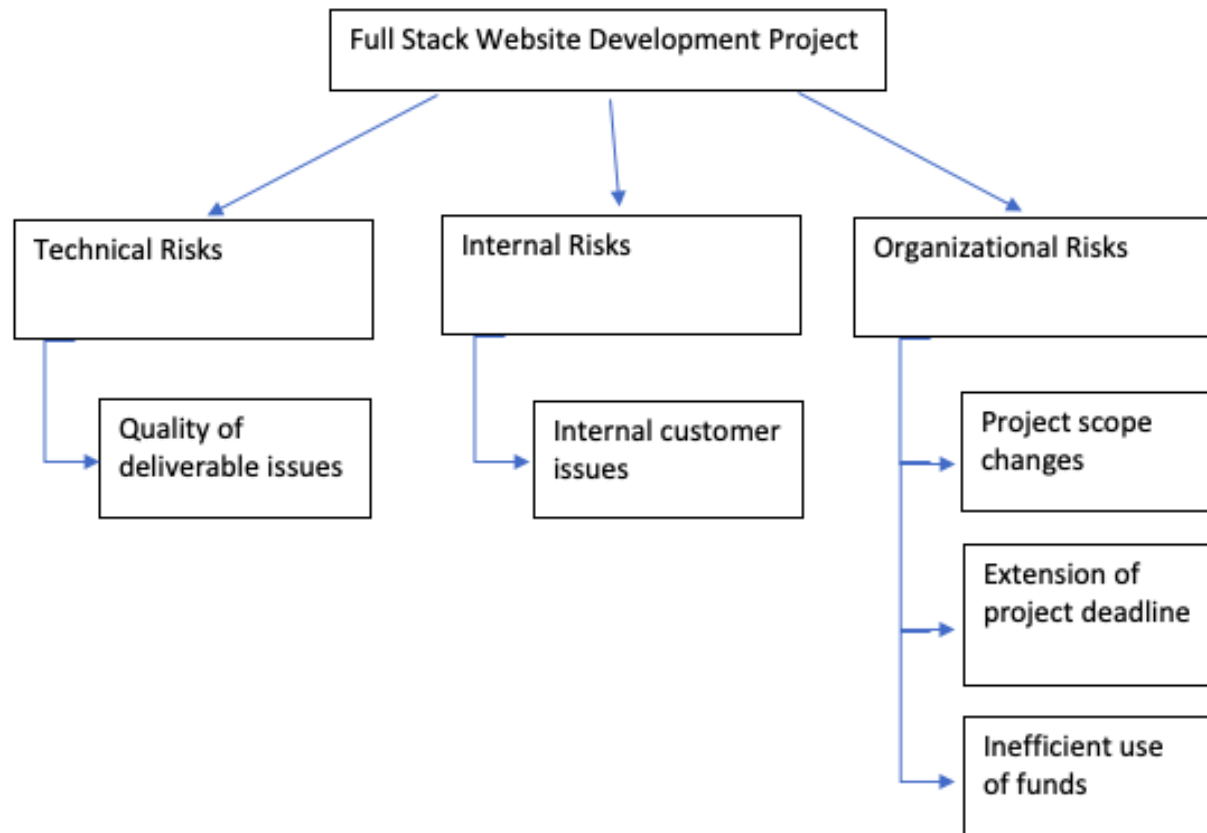
Three other college interns and I worked on a project to design and develop a website for quality assurance analysts to execute and analyze test cases for various storage projects that are underway for release. We followed the Software Development Life Cycle (SDLC) that involves planning, design, implementation, testing, and deployment. Throughout the duration of the project, we followed the Scaled Agile Framework (SAFe) methodology, a top-down method to project management and decision-making. First, we gathered requirements to determine the

necessary features for the website. Next, we designed a prototype of the website as well the database which we presented to the rest of the team. We got approval of our design and split up the feature implementation among our intern team. After this stage, we tested our website and deployed it in a production environment so that it was ready to use for our internal customers.

## Discussion

### Risk Assessment Matrix

	Identified Risks	Potential Response	Mitigation Plan	Root Cause	Category	Priority	Urgency
1	Project scope changes	Give priority to bigger tasks with functionality and completeness of the deliverable in mind	Discuss and determine the project scope with the involved team in the project planning stage	Project scope was not discussed beforehand	Human	Low	Medium
2	Quality of the website deliverable is unsatisfactory	Assign a team member(s) to identify the components that are impacting the quality and fix them	Ensure the website is constantly monitored and features are up to date	Website is not maintained and features become dysfunctional	Human	High	High
3	Internal customers are unhappy with a dysfunctional, incomplete deliverable	Complete the website so that it is usable for users	Ensure user requirements are gathered and completed	User requirements were not given priority	Human	High	High
4	Project deadline has to be extended	Extend the deadline to as few days as possible to complete the necessary project components	Determine a clear scope that can be completed and emphasize time management	Tasks take longer than expected leading to important tasks getting shelved	Human	Medium	Medium
5	Inefficient allocation of funds	Develop a plan to allocate the lowest amount of funds possible	Hire interns to complete the job and ensure the project can be completed on time	Project deadline needs to be extended and other engineers need to be put on the project that could cost more money	Human	Medium	High

**Risk Breakdown Structure**

### **Conclusion**

Risk assessment and breakdown diagrams help in managing unexpected turns in projects and was especially useful for the intern team's website development project. Developing the diagrams helped identify any potential risks, create a plan to overcome them should they arise, and assign a priority as well as urgency level. The intern team learned how to apply the risk diagram in a practical sense as well as how to use them for other projects in the future.

### References

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