**Project Internship Report**

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MAQ Software has worked closely with marketing, operations, and product groups across Fortune 500 companies.

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# Introduction

* 1. About MAQ Software

MAQ Software ([www.maqsoftware.com](http://www.maqsoftware.com)) has worked closely with marketing, operations, and product groups across Fortune 500 companies. More than 50,000 Product, Sales, and Marketing Managers around the globe use custom applications (both on-premise and Cloud hosted), Line-of-Business (LOB), and Data Analytics & Business Intelligence (BI) solutions created and managed by them.

Every day in MAQ Software, each team organizes a small daily hurdle to keep their work items ready for the whole day. They organize a weekly talk every week in which Team leads and senior employees shares information of upcoming technology and how that technology will be used in are day-to-day life work.

1.2 About My Role

I was an intern at MAQ Software. The Internship started on 7th January 2019. First month was a Bootcamp. So, they took us through their working methods, technologies and many more things. After Bootcamp, I was assigned to Azure Migration Team, where I have worked with a team that is working on that project for last six months. In that project, I have worked on both Back-end and Front-end parts.

# Scope Statement

* Back-end: - In this my role was to apply business login to achieve functionalities that were mentioned in the User Stories. Also, modify the implementation that was done already by the team in some cases were functionality need some changes.
* Front-end: - Used JavaScript and HTML to implement the rendering of data in Portal. Also, I have created the UI for some modules in the Portal that we are working on based on the UI mockups given by the UX team.

# Detailed Use Cases

* List of Assessments: - user should able to see list of assessments that have taken till today.
* View Report an Assessment: - user should to see report on the Assessment taken already.
* Take an Assessment: - user should be able to take a new Assessment based on the report generated.
* Customize an Assessment: - user should be able to customize the Assessment selected.
* List the Machines: - user should be able to get the list of Machines that are in Assessment selected.
* List VMs: - user should be able to get the list of VMs that are created for the Machines in Assessment selected.
* Monitor VMs: - user should be able to monitor the usage of VMs that are created in the Assessment to replace the On-premise machines.

# Programming Contribution

* Converting User Stories to Features: - Implemented the business logic for the user stories assigned as part of the Sprint to achieve the features mentioned.
* Developed UI as per the Mock-ups: - Developed the UI of the assigned modules for the Portal as per the mock-ups given by UX team.
* Bug Fixes and Modification: - As some parts of the project is implemented before I joined the team. So, there are some bugs are raised during the implementation of the other functionalities.
* Resolved the Bugs and done modification to achieve the functionality goals.

# Tools, Technologies, APIs Libraries

* Tools
* Visual Studio
* PowerShell Editor
* Microsoft Teams
* Azure DevOps
* Technologies
* HTML
* PowerShell
* C#
* Asp.Net
* Java Script
* MVC framework
* jQuery
* Libraries
* jQuery cdn version
* Azure management libraries for .NET

# Testing Strategies and Reports

* Test Environment Testing: - Testing of Functionality on local environment to fixe bugs and issues within local environment. Helps in the early phase of project to avoid bugs and issues later in the product.
* PPE (Pre-Production Environment) Testing: -Testing is done with all the constraints and rules to check if functionalities are working as per requirement before deploying it on the actual platform.
* Production Testing: - Testing is done on the actual platform to see all the functionalities are deployed successfully on the production environment. If bugs or issues are found, then patches will be created to resolve those bugs and error on production.
* External Code Review: - External Code reviews are done by the Senior Employees of the organization on the Business logic implemented in the project on certain durations. They Provide comments on the code and suggest some important modifications in the code.
* Bug Bash: - Bug Bash is done by the team members of the project. They all decide a time span of 2-3 hours for testing and distribute the modules among themselves. They put the issues or bugs in common one note file and tag the person who needs to analyze this.

# Innovative Contribution

* VM creation Issues: - There are no direct implementation for the creation of multiple VMs on Azure Portal parallel. Implemented business logic for this feature using c#. Required information to create VMs are stored in a data structure and passed to the Azure Portal to create VMs parallel.
* Merging of Data in Azure Blobs: - After merging the Azure Blob data the format is not maintained as per the requirement. For maintaining the format of the Blob data, I have updated the method for merging the data in the Azure Blob.

# Lessons Learnt

* Application Development
* Collaboration with remote teams.
* Working in the fast-paced environment, where learning and development runs parallel.
* Upcoming Technology with their use cases.
* Team management and Time Management.