## Risks

Undertaking a project such as stockIT is an exercise in risk taking, risk management and risk mitigation. In all such situations it is important to fully understand the risks and challenges you may face before you can attempt to manage or mitigate the affects of those risks. Because of the vast undertaking that is facing the stockIT development team with the creation of software, there are a variety of issues that act as roadblocks to the development lifecycle of our product and to seeing it through to its full implementation. The key risks facing the development of both our Project and the Assignment itself are listed out in the table below

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| **Risks** | |
| **Assignment** | **Project** |
| **Market & Landscape**   * Is there a place for stockIT in the world of ERP and Business? * Does it fit into marketplace? * Limited access to immediate market data (group members business data) * Can a start-up compete with the established market players? | **Financial**   * Funding is required for the project to be developed at good pace. * Too saturated for financial investment? * Who do we approach for investment? * What is our runway with or without investment? * How much is required? |
| **Temporal – deadline**   * Can we complete deliverable(s) in 6 weeks? * Do we all have enough time to develop the Project. | **Market**   * Is the market too saturated for stockIT to be successful? * Can we get access to more Market data? |
| **Software**   * Python issues with creating functioning GUI and being able to code the program to act the way we had originally planned. * MIT app creator did not meet the requirements for what we wanted. | **Temporal**   * Time to develop project. * Project Development lifecycle. * Time for potential investor contracts. * Will stockIT ever really be finished? |
| **Skills**   * No prior coding experience. * No prior UX and UI experience. * No prior database experience. | **Supply Chains**   * Covid world |
| **Hardware**   * No cloud infrastructure or local storage database. * Using our own personal hardware to develop all assets. * Budget limitations. | **Staffing**   * Can we hire the right people? * What is the skill barrier? |
|  | **AI**   * Will we be able to license the AI from academia? * If we cannot license it, how will we go about creating a functional AI. * Can we use code that operates in a predictive manner using datasets from users? |
|  | **Software**   * Technical skills to develop functional software. * Will we have to develop software or can we license utilities and tools to suit our needs? |
|  | **Features and functionality**   * Software integration * SILo Feature functionality * Supply chain integration * Storage Database infrastructure * Reporting functionalities * AI integration * Direct purchasing integration * Unit Profiles * Stock Taking functionality |

The single biggest risk to both the development of stockIT and the project itself is the timeline. To mitigate the temporal factor facing the completion of the assignment, we have allocated tasks to each group member, the time required to complete the task (to give ourselves a better indication of the actual time required to complete it) and created a visual timeline to provide an at-a-glance roadmap and development timeline. The timeline for the development of stockIT extends far beyond both the 6 week and 16 week deadline imposed on us, as such, we have created an accurate as possible post deadline that sets clear goals and deliverables for a period of up to 6 months. At the end of the 6 month period, we believe it will be feasible to have a base-line product ready for market.

This leads into the second shared risk (between both the assignment and stockIT). The market. The target markets for stockIT have witnessed the hardest hit over the past 12-18 months with Covid-19 closures, reduced trading hours and risk to staff. Bringing a new product to market (even as an exercise as part of this assignment) in the current economic climate can be a very difficult thing to do. The single biggest risk here that is common amongst both Project and Assignment is that of the Market. Market can mean a few different things in this type of situation and while the specter of Covid will continue to loom for the foreseeable future, posing a significant risk to stockIT’s target market is not something that can truly be overcome by our development group. In this situation, we would use the uncertainty given by Covid to develop stockIT before going to market as covid has paused businesses unnecessary spending – giving the development team more time to create the product. The uncertainty here can also be used to our advantage as stockIT allows the user to do more, have more control and a greater level of oversight with less staff hours required, therefore not requiring a business to have a large pool of staff which is difficult to retain in these current circumstances.

Secondly, bringing a new upstart business to an already established marketplace poses risks to the future financial stability and success of the business as the development group will need to place a larger focus on taking customers away from established software suites. This will mean a large investment in marketing for customer acquisition which will divert funding away (albeit initially) from the development of the software. One way to mitigate this risk is to focus on a freemium offering at first, with reduced functionalities and features, but aimed at capturing a portion of the market and getting a foothold in the small retail and hospitality businesses. With an established freemium foothold stockIT can then pivot to the full offering and upsell current customers to a more feature rich subscription model. Alongside this, stockIT can offer referral bonuses to current customers to help organically grow the userbase of the software.

The range of non-shared risks (between the Project itself and the assignment) largely fall into hard skill shortages, software, and hardware. The hard skills of the development team pose the biggest risk to the development of stockIT and to the assignment. Because of the skills shortfall, we are unable to create coded and functioning deliverables with fully formed features that would best display the capability of the stockIT software. This negatively impacts both the marketability of the software suite and our ability to create tangible artifacts for the assignment project. To mitigate this risk, we plan to hire experienced developers and programmers to help create the software. On the assignment side of things, we have stuck to deliverables that are within our skill set – this includes a wireframe created using Figma that best displays what our finished product would look like and creates a visual aid for our product vision.

Having to hire developers and programmers leads into another risk facing stockIT’s development. That being the financial risk of pursuing a project such as this. Initially, the project plan is to pitch the idea to a series of investors and seek financial assistance to speed up the development of stockIT’s software. Without financial assistance, the timeline for software development is greatly delayed as it relies on the original development team being able to teach and learn programming.

While ideally all development team members will be able to upskill through-out the course, any delays in bringing the product to market creates further financial burden on the group, delaying the product coming to market and therefore decreases the chances of stockIT’s success and viability of the software. All business ideas and their creation are time sensitive to a certain degree, none more so than new software packages. The earlier stockIT comes to market, the more users we can capture and the more time there is to work on growing the market and developing the features and functionalities of stockIT.

There are always risks in life however with business, the risks can seem insurmountable. This is because there are real world implications if a business fails, negative financial implications and the risk that all the time investments could be for nothing. What we have addressed documents the risks that we have been able to foresee but there are always more that are unknown and cannot predict. The only way to mitigate the unknown is to focus on the known.