

# Project Management in Engineering

### Homework 2

### Group Members:

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**Project Name: SuitUP!** 

Project Manager: Aleksja Braka

#### **Five Potential Risks of the Project:**

- 1. The project cannot be completed in a systematic manner. *Project Management Risk*
- 2. Project purpose and need is not well-defined. Project Management Risk
- 3. Some features of the app do not fit different phone models (such as size of icons, no notification to some phones in case of important announcements). *Technical Risk*
- 4. The live chat section of the app may not work efficiently due to the company with which the agreement was made. *External Risk*
- 5. The determined budget for the project may be insufficient. *Organizational Risk*

## Risk Register:

### Organizational or External Risks:

Risk Description	Likelihood of the risk occurring	Impact if the risk occurs	Owner (Person who will manage the risk.)	Mitigating action (Actions to mitigate the risk e.g. reduce the likelihood.)	Continge nt action (Action to be taken if the risk happens.)
The determined budget for the project may be insufficient.	Medium	High	Financial Manager of the project	Wise use of the project budget and regular reporting of costs as long as the implementation of the project continues.	To appeal for help to the sponsors of the project.
Personal situations may occur, such as a key member of the team getting sick or having a job that is more important than the project.	Low	High	Leaders of relevant team	Requesting accurate information from team members on a regular basis	A new candidate can be recruited to the team.
Due to some external risks, the budget determined for the project can be restricted	Low	High	Financial Manager	To provide consistent agreements with the sponsors of the project about the budget's longevity.	To convince the executive managem ent team to prioritize this plan,

					a meeting should be scheduled.
The live chat section of the app may not work efficiently due to the company with which the agreement was made.	Medium	High	Developing Team of the project	Contact with the companies that provide live chat, after testing them, sign a contract with the best company among them.	To apply to the relevant company for help.
Consultant or contractor delays	Medium	High	Project Manager	Include late penalties in contracts.  Build in and protect lead time in the schedule.  Communicate schedule early.  Check in with suppliers regularly.  Query '90% done'.  Ask again and again if they need anything else.	Escalate to Project Sponsor and Contracts Manager.  Implement late clauses.

### **Technical Risks:**

Risk Description	Likelihood of the risk occurring	Impact if the risk occurs	Owner (Person who will manage the risk.)	Mitigating action (Actions to mitigate the risk e.g. reduce the likelihood.)	Contingent action (Action to be taken if the risk happens.)
Some features of the app do not fit different phone models (such as size of	High	Medium	Front end Developing Team of the	By regularly checking the documentation	Tester team should determine bugs of the app and front

icons, no notification to some phones in case of important announcements)			Project	prepared by the front end developers, ensuring that there are no big issues with various cell phones.	end developers fix the issues by writing new code scripts with more modern methods.
Instead of being user friendly, the interface can become complex.	Low	Medium	Front end Developing Team of the Project	Continuous interaction with the front end and tester teams of the project related to the complexity of the design	Developers who are highly experienced and specializing with implementing useful designs which provide user friendliness should be consulted and changes should be made based on their feedback.
Cyber attacks on the application can be arranged by hackers	Medium	High	Security team of the project	By training cyber security staff and ensuring endpoint protection regularly to prevent the app from cyber attacks	The cyber security police have been notified as it should be. Assessing the extent of the project's loss. To provide project managers with proper information.
The live chat software cannot be embedded into the mobile app.	Medium	Medium	Support team of the related live chat company and Developing team of the project	Asking the questions about the problem to the live chat company	Determining the issues according to documentation and feedback of the company and try to fix them as soon as possible

### **Project Management Risks:**

Risk Description	Likelihood of the risk occurring	Impact if the risk occurs	Owner (Person who will manage the risk.)	Mitigating action (Actions to mitigate the risk e.g. reduce the likelihood.)	Contingent action (Action to be taken if the risk happens.)
The project cannot be completed in a systematic manner.	High	High	Leaders of Teams of the project and Project Manager	Requesting updates from project teams regularly and issuing the requisite alerts in order to finish the task on schedule.	To encourage workers to complete their jobs without any delay.
Project purpose and need is not well-defined	Medium	High	Project Sponsor and Project Manager	Complete a business case if not already provided and ensure purpose is well defined on Project Charter and PID.	Escalate to the Project Board with an assessment of the risk of runaway costs/never-ending project.
Project schedule is not clearly defined or understood	Low	Medium	Project Manager	Hold scheduling workshops with the project team so they understand the plan and likelihood of missed tasks is reduced.	Escalate to the Project Sponsor and bring in back up resources.
No control over staff priorities	Medium	Medium	Project Manager and Team Leaders	The Project Sponsor will brief team managers on the importance of the project. Soft book resources as early as possible and then communicate final booking dates asap after the scheduling workshops. Identify back ups for each	Escalate to the Project Sponsor and bring in back up resources.

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#### **Quality Metrics:**

- 1. Satisfaction from clients of the app in terms of usability and user-friendliness
- 2. Satisfaction from employees in terms of fair compensation, motivation and security
- 3. Continuous progress during the project's life cycle
- 4. The time period which the app took to hand over from the concept of business to market
- 5. The results of the project, as well as the allocated budget to complete it
- 6. The amount of money which was spent on the project (resources, equipment, salaries, etc.)

#### **Quality Planning Techniques:**

In this mobile app "Benchmarking" will be used as a quality planning technique. According to this technique:

- 1. Procedures of low efficiency will be identified.
- 2. Expectations for performance will be created.
- 3. Both internal and external sources will be identified
- 4. Data will be summed up from these sources
- 5. These data will be analyzed carefully by the key team members
- 6. The particular report will be created by using quality management methods such as histogram, quality circle, control charts and six sigma, etc.
- 7. Steps will be taken as a result of this important report

To measure software quality, download size and security response will be considered. Additionally, thoughts of team members who are active during the project implementation are crucial in order to make quick choices.

#### **Period of Quality Measurement during Project Lifetime:**

- 1. Quality measurement will be done each week properly in order to observe development of the project and team work.
- 2. For every new component quality measurement techniques will apply
- 3. The measurement control periods may change according to the requests of the stakeholders

#### **Project Standards:**

- 1. Profitability and continuous utilization of the mobile app, which shows the high quality development of the project. In project management, it is called **Maturity**.
- 2. Making a number of sources available for the project which is called as **Source Utilization**
- 3. At least half of the number of current successful test cases targets must be achieved.
- 4. Modules that pass the test cases with success must be accrue to the report.
- 5. The design should not be complex, clients can easily learn interface of the mobile application
- 6. It should be easy and flexible to use the app with high quality which is called **Modifiability** in project management.
- 7. The download size of the application should not be more than 100MB and since it takes up very little memory space, it can be easily downloaded to various phone models.