

Figure 1: Stakeholders Mind Map

Stakeholder Category	Stakeholder	Description
Competitor	Similar Applications	Other health care applications like iCare
Investors	Sponsors	A person or an organisation, funding the project
	Hospital	Owner of application
Maintenance/Customer Service	System Integrators	A person or a company integrating different project components
	Maintainers	A person or a company taking care of the technical issues of the project.
	Call center	Department taking care of feedbacks from the users about the project.
Misuser	Hackers	Unauthorised person affecting the application security
Regulatory authorities	RAMQ	The Régie de l'assurance maladie du Québec (RAMQ) is the government health insurance board in the province of Quebec, Canada. ^[3]
	Insurance Companies	Company or organisation providing financial protection or reimbursement to a policyholder,

Project Development Team	Project Manager	the person in overall charge of the planning and execution of a particular project. ^[4]
	Developers	person concerned with facets of the software development process, including the research, design, programming, and testing of computer software.
	Testers	part of a software development team and perform functional and non-functional testing of software using manual and automated software testing techniques. ^[5]
	Software Analyst	a software analyst is the person who studies the software application domain, prepares software requirements, and specification (Software Requirements Specification) documents. ^[6]
Users	Parents/Legal Guardians	A father, a mother or a legal guardian to someone, according to Canadian Law
	Professionals	Registered nurses of the hospital
	Other Apps	Third party usable apps

Table 1: Stakeholder Description

Stakeholder Concern mapping

To ensure a project's success it is very important to communicate with the stakeholders and to determine the level of communication we need to understand each stakeholder's interest and influence on the project and prioritise stakeholders. For our project we have prioritise the stakeholders based on *Mendelow's matrix*.

We have mapped iCare's stakeholders into four groups

1. Low interest, low influence – those we need to keep informed
2. High interest, low influence – those we need to involve and consult with
3. Low interest, high influence – Influential stakeholders we need to engage
4. High interest, high influence – partners we need to collaborate with

Prioritisation of stakeholders is illustrated in figure 2. The arrow represents the direction of influence. The stakeholders at the tail of the arrow has an influence over the stakeholder at that arrowhead. For example Regulatory Authorities can influence Investors but Investors

can not influence the Regulatory Authorities, so there is one arrow going from Regulatory Authorities to Investors

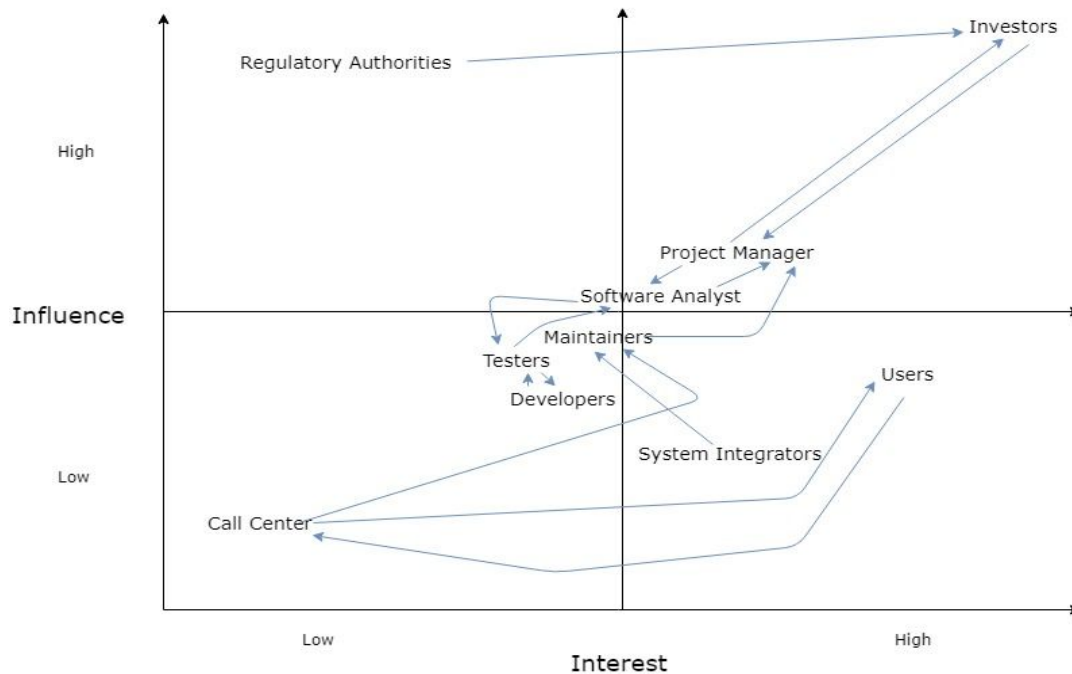


Figure 2: Prioritization of stakeholders based on interest and influence (adapted from Mendelow's matrix)

Table 2 represents concerns and their resulted quality attributes

Stakeholder	Concerns	Quality Attributes
Sponsors	<ul style="list-style-type: none"> -high quality of final system to satisfy market users -accessible, anywhere and anytime -low cost of the system development -proper use of resources 	<ul style="list-style-type: none"> -credibility -availability
Hospital	<ul style="list-style-type: none"> -low cost of the system development -compatible with other systems present in the hospital -easy system maintenance -protection from intrusion and data corruption -on time delivery of final product 	<ul style="list-style-type: none"> -appropriateness Recognizability -operability -user Interface Aesthetics -Interoperability -authenticity -integrity -confidentiality -compliance -availability -maturity

	<ul style="list-style-type: none"> -high quality of final system to satisfy market users -accessible, anywhere and anytime -easy update of the system -easy product use for end users 	<ul style="list-style-type: none"> -fault Tolerance -recoverability -capacity -time Behavior
Project Development team	<ul style="list-style-type: none"> -simple user interface -effective error detection and easy recovery -accessible, anywhere and anytime -protection from unauthorized access and data corruption -easy system maintenance -easy exchange of shared information -reuse of the resources -realistic and achievable requirements -proper Documentation of the system -low cost of system development -on time delivery of final product -high quality of final system to satisfy market users -effective resource allocation -simple design and implementation -transferable from one device to another device 	<ul style="list-style-type: none"> -appropriateness Recognizability -learnability -operability -user Error Protection -accessibility -authenticity -integrity -confidentiality -compliance -analyzability -modifiability -modularity -testability -reusability -interoperability -maturity -fault Tolerance -adaptability -installability -recoverability -capacity -resource Utilization -time Behavior
Regulatory Authorities	<ul style="list-style-type: none"> -easy verification of legality and authenticity of doctors and professionals -easy verification of all the intense actions and services offered -authenticity and security of the information being public by the iCARE 	<ul style="list-style-type: none"> -credibility -accountability -authenticity -non repudiability -compliance
Maintenance/Customer service	<ul style="list-style-type: none"> -easy system integration -easy system maintenance 	<ul style="list-style-type: none"> -analyzability -modularity -installability
Parents/Legal Guardians	<ul style="list-style-type: none"> -simple user interface -easy to learn user interface 	<ul style="list-style-type: none"> -appropriateness Recognizability -accessibility -learnability

	<ul style="list-style-type: none"> -effective error detection and easy recovery -usage cost should be adequate -accessible, anywhere and anytime -accuracy and reliability of information -protection of personal information -compatible with devices -useful notifications -fast response time 	<ul style="list-style-type: none"> -operability -user Error Protection -user Interface Aesthetics -availability -recoverability -awareness -compliance -accountability -authenticity -confidentiality - integrity -adaptability -installability -capacity -time Behavior
Professionals	<ul style="list-style-type: none"> -simple user interface -includes essential and useful information -easy to learn user interface -effective error detection and easy recovery -accessible from anywhere -protect private information -compatible with device 	<ul style="list-style-type: none"> -appropriateness Recognizability -learnability -operability -user Error Protection -availability -compliance -confidentiality -adaptability
Other Applications	<ul style="list-style-type: none"> -easy and fast access -protection from unauthorized access and data corruption -easy exchange of shared information 	<ul style="list-style-type: none"> -time behavior -non repudiability -integrity -Interoperability

Table 2 : Stakeholder Concern Mapping

Stakeholder is a person or an organization that has an interest in a company and can either affect or be affected by the business. It is very important to identify and engage the stakeholders from the very beginning of the project to make sure that deliverables meet customer's need. Early identification of stakeholders and their concerns also help to reduce and uncover risks which paves the way for a successful and accepted project.

To identify the stakeholders of iCare at first we conducted a brainstorming session and tried to answer following questions:

- Who is directly involved with the project?
- Who is indirectly involved with the project?
- Who may be affected by the project?
- Who may be affected by the project's outcome?
- Who gains or loses from the project's success?
- Who wants to complete the project successfully and who doesn't?
- Who are the suppliers?
- Who is the user of the end result of the project?
- Who are the competitors?
- Who are the shareholders?
- Is any local community impacted by the project or its outcome?
- Who has the authority to influence the project or its outcome?
- Who has the authority to make the project succeed?
- Who can make your project fail?

We also studied about similar projects to analyse and group the stakeholders. Finally we came up with following stakeholders for iCare depicted by the mindmap and described in table1.

References

[1] [online] <https://coggle.it/>

[2]Kaplan Financial Limited. (n.d.). ACCAPEDIA. Retrieved June 9, 2018, from <http://kfkknowledgebank.kaplan.co.uk/KFKB/Wiki Pages/Mendelow's matrix.aspx>

[3] [online] <http://www.ramq.gouv.qc.ca/en/regie/Pages/mission.aspx>

[4] [online] https://en.wikipedia.org/wiki/Project_manager

[5] [online] <https://www.techopedia.com/definition/29845/software-tester>

[6] [online] https://en.wikipedia.org/wiki/Software_analyst

[7] Usmani, F. (n.d.). How to Identify Project Stakeholders? Retrieved June 9, 2018, from <https://pmstudycircle.com/2012/06/identify-stakeholders-project-management/>