Deakin University

HIVE AI

Project Diary

Project Team

Team A

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Document Version DRAFT

Project Goal

- *Create a platform that will allow AI to be added to as a next level service to patients and doctors alike.*
- *The prototype will first enable the doctor to add a widget to their existing website*
    - *Manage patients*
    - *Triage patients*
    - *Chat to patient*
    - *Manage payments*
- *The prototype will allow a patient to*
    - *Access their existing doctor via a widget*
    - *Manage their account details including user credentials and payment options*
    - *Book and manage bookings*
    - *Chat to the doctor*

Project Value

Value Hypothesis

With Hive AI enhanced teleconsulting, a doctor or a clinic of doctors could utilise the platform to:

- better service their current patient list
- increase patient list
- reduce waiting time
- reduce cost to their patients for unnecessary consultation time
- increase overall revenue by increasing total number of clients seen

Growth Hypothesis

To be determined

Metrics

TBD

Project Plan

Communication Strategy

Project communication will be via Slack which provides real time notifications and ensures the entire team is updated at once in real time. The Slack platform also allows supervisors to be engaged in the ongoing process.

Trello and GitHub have also been configured to send activity to Slack to ensure all group members are aware of current activity

Task Management Strategy

The entire project is divided into sprints lasting 2 weeks each.
Each sprint will have 2 milestones and each milestone will have tasks and subtasks to ensure we are meeting the project goals.

Iteration Plans

Iteration 1	Requirements gathering and general reasearch		
Start Date	23/07/18	End Date	05/08/18
Description	Meet up with Supervisor/Client Get briefed on Project Gather requirements and document Perform research on general subject		
Result	Draft documentation Design process Bootstrap process		
Follow Up	Leverage off design to create • Landing page • Registration Page • Login Page Design booking and chat functionality		

Iteration 2	Put Title here		
Start Date	06/08/18	End Date	25/08/18
Description	Leverage off design to create • Landing page • Registration Page • Login Page Design booking and chat functionality		
Result	TBS		
Next Step	• Create Data Base •		

Iteration 3	Put Title here		
Start Date	26/08/18	End Date	08/09/18
Description	TBD		
Result	What did you achieved, learned? What happened?		
Next Step	Put what will be your next step (Pivot / Persevere).		

Iteration 4	Put Title here		
Start Date	09/09/18	End Date	22/09/18
Description	TBD		
Result	What did you achieved, learned? What happened?		
Next Step	Put what will be your next step (Pivot / Persevere).		

Iteration 5	Put Title here		
Start Date	23/08/18	End Date	29/09/18

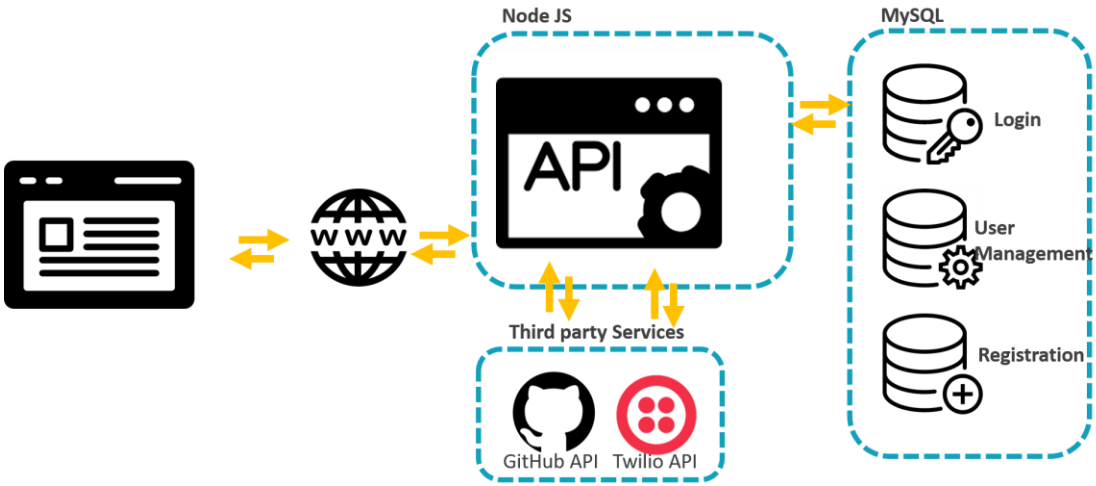
Description	
Result	What did you achieved, learned? What happened?
Next Step	Put what will be your next step (Pivot / Persevere).

Design

Include information about the general design / gathered requirements etc.

Architecture

Overview



Key Components include

- Web browser
- API using Node JS
- Database using MySQL
- Third party services including GitHub for repository of related files and Twilio for chat functionality

Architectural Decisions

AD001	**Choice of the storage technology and model**
Problem Statement	(What is the problem being addressed?) Our application, even though not data-intensive, requires storage for persisting key information that is required for its function. Different storage technologies do provide different approaches to storage and impose different constraints on what can be saved. The choice of the particular storage

	technology and model will impact the design and implementation of other components of the application.
Available Options	
Option 1.	**Utilise a Relational Database** Description: This solution implies the use of relational data store based on SQL. All the entities of our system will be persisted as records in one or more tables. The solution will have a defined schema for the data model. Pros: • Powerful query language that can be used to operate on the data. • Model very simple to understand and known very well by the team. • Record validation is performed by the database. • Ease of availability of product implementing this model. Cons: • Customisation of the data model is hard, because the model is optimised for data with regular structure (i.e. records).
Option 2.	**Utilise a NoSQL / Document Oriented Database** Description: This solution implies the use of a document-oriented database (NoSQL) such as MongoDB or Cloudant/CouchDB. The entities will be persisted as documents in the database and we will be able to persist different (also user defined) entities within the same containers because no schema is defined. Pros: • Schema-less implementation. • Ease of availability of product implementing this model. • Highly scalable solution. Cons: • Record validation needs to be implemented within the application or by using additional libraries. • The capabilities of the query languages differ from product to product as there is no standard in the field. • Lack of knowledge of this type of storage model within the team.
Option 3.	**Utilise a File based System** Description: This solution implies the use of files to persist entities within our application. Pros: • The model is easy to customise as we can decide what to store in the file and these can either be records of the same structure or different records. Cons: • The set of built-in services and capabilities strongly varies from product to product, ranging from simple file access to more sophisticated operations. It might be

	hard to have available a query language that can be effectively used. • The model might not be able to provide backup and custom implementation is needed for this feature. • Performance might be another issue on top of custom development for accessing and manipulating the entities in the storage.
Decision	
Selected Option	The selected option is **Option 1.**
Justification	(Explain why you choose that option, essentially what based your decision on). Option 1 is particular advantageous because of the nature of the application we're developing. In particular, we do not need to provide user-defined records and the application entities abide to a well-defined structure that is more effectively represented and manipulated trough a relational model. Moreover, the team has a well-developed set of skills and expertise with relational database and this will boost the development activities and reduce time.
Implications	(Describe the impact of selecting the specific option mentioned above) We will need to provision a database solution in the cloud as a service. We might be limited in the choices of available product especially if we want to maintain the solution within one single platform of the cloud computing vendor. We will need to find client libraries that enable us to talk to the specific database implementation.

NOTE: while developing a project you are implicitly taking these decisions and go through a process that covers the items identified in the template table. The Architectural Decisions artefact (i.e. the collection of tables as the above one, one for each decision) is simply a way for improving the accountability of your actions and reflect more attentively (e.g. by putting pros and cons of the different options on paper) on the choices you make, learn from it and keep it for the future.

Retrospective

Here you are asked to share some thought about the overall process. This should be a critical analysis of how you (as a team) performed to achieve the desired outcome. In particular, some of the elements that may guide you in this discussion are:

- How you broke down your development process into iterations.
- The learning at the end of each iteration.

- What went wrong and what went right, what would you have done differently?
- Was the original idea sound enough to pursue development successful?