Show me…

*Project plan*

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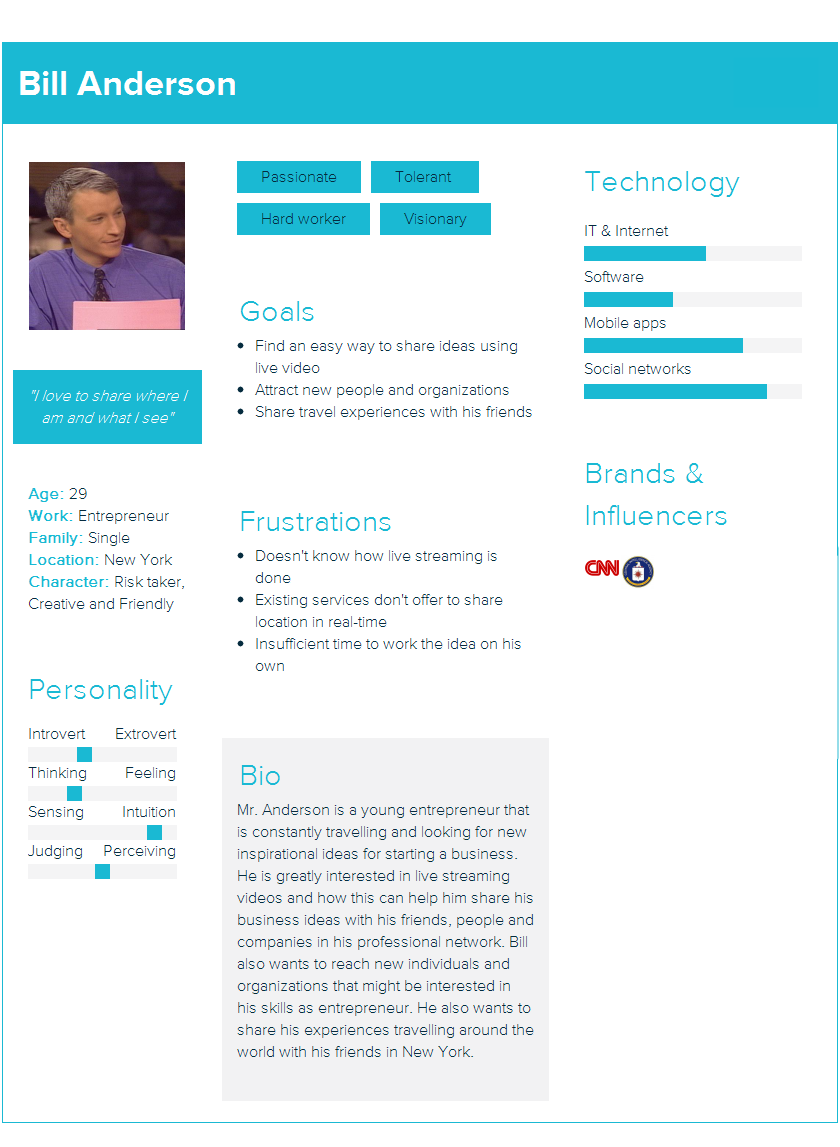
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# **Introduction**

This document describes the initial planning for developing a mobile and web application called “Show me”, which will allow people to live stream video using the camera on their smartphone. The document has three main parts – this introduction, which briefly describes the purpose and contents of the project plan, project statement and MoSQuITO (Money, Skills, Quality, Information, Time and Organization). The project statement part gives information about the client, the project leader, starting (current) situation, justification for executing the project, the end product, what will be delivered and what not. The statement includes also project constraints, a table of possible risks that might occur during the project, possible solutions, is the probability to happen high or not and how severe the risk is. The final part of the project statement is the phasing which describes the different phases and the deliverables at the end of each phase. The MoSQuITO lists the project budget, the skills that are needed to execute the project, the quality constraints which must be abide, table that shows the documentation involved and which parties are responsible for drawing/approving it. The final two sections of the MoSQuITO give information about the time needed to execute the project and the roles of each member of the Code Ninjas within the project.

# **Project statement**

## Formal client



## The company

“Ninja Coders” is a company based in Eindhoven, the Netherlands. They have been building corporate software for about 15 years already. Most of their work is concentrated on entrepreneur kind of businesses, which allows them to have the “interesting” shaped mindset. Their team counts 5 people, all educated in the sphere of Software Engineering and Business studies. Undoubtedly many happy clients like to share their names, which makes it a fact, their work is always at a top level. During this project, their task is to make sure that one entrepreneur will be always ready to live-stream his ideas, right at the place where they are happening, right at the moment, when everything is going on!

## Project leader

To be determined.

## Current situation

As already mentioned Bill is a young entrepreneur, who wants his ideas to be heard. Not so common, he has that flying kind of mind, so his ideas are unfortunately always difficult to capture and visualize. Here comes the problem with him, he would need something that can make the impossible – possible. Something that can be put on drones, trains, bikes, cars, on people, animals and much more, just to be able to live stream about what is going on right there, right at that moment. He has had very interesting adventure on a camel recently, which he could not capture and turn into an idea, unfortunately. As far as his concerns reveal, this is something that he would not like to see happening again. That’s why Bill has decided on making a deal with a software company, to have such a product built for him.

Bill has tried numerous ways of capturing the moment, with mobile phones, with 360 cameras, but none of them offers exactly what he needs. Everything is fine, but none to the point that, he would say “That’s it!” Currently he is able to record the adventure, but recording the adventure loses its uniqueness, it’s interesting only when it is happening. That’s what Mr. Bill definitely thinks. If the company, he has talked with, manages to provide him with such a product, Bill will be the happiest entrepreneur in the world.

## Project justification

Considering the frustrations that the client has been facing such as:

* Not knowing how live streaming is done
* Existing platforms and applications not offering the needed functionality
* Insufficient time to spend on ideas

Some goals have been defined. Basically, the idea that holds behind the minds of our software engineers is to build a system, which will address certain problems and will follow goals and actions. Among all the small details about the project, the most specific and direct goals might be described as:

* Finding an easy way to share ideas through live videos
* Attracting more people and organizations
* Sharing experience with surrounding people
* Saving time and money

## Research questions

Main research question: How to create a distributed video and location live streaming service?

Sub-questions:

* What is needed to create a distributed system?
* What database system fits best for this application?
* How to stream video and audio from a phone app to the server?
* How to broadcast a video and audio stream to multiple clients?
* What time interval can be used to share location?
* How to create a cross-platform phone app?
* Which parts of the phone app still need platform specific code?
* Which protocol can best be used between the phone app and the server to reduce bandwidth?
* Which protocol can best be used between the server and the web-app?
* In which language/framework should the server of the application be written?
* How can the server be hosted in the cheapest way possible?
* How to do authentication inside the phone app?
* How to do authentication inside the web app?
* Would it be interesting to share data of other sensors?
* How to handle user registration?
* What is the UI of the phone app?
* What is the UI of the web-app?
* Which map provider is best to be used within the web-app?

## Risks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Risk | Likeliness | Prevention | To Do After Happening | Impact |
| Lack of Knowledge | Low | Choose a Project that has Familiar Required Skills to Us | Learn the Required Skills. | Medium |
| Lack of Time | Low | Make a Detailed Time Table and Stick with it. | Negotiate with the Client to reduce the scope | High |
| Lack of Communication | Low | Create a Communication Plan. | Plan a Meeting to Get an Effective Way to Communicate. | Medium |
| Knowledge Gap Between Member | Medium | Choose a Project that has Familiar Required Skill to all Project Member | Do a Pair Programming. | Low |
| Lack of documentation on Technology | Low | Choose an Available and a Well Documented Technology to Develop the Project. | Change the Currently Used Technology. | Medium |
| Program Doesn’t Run | Low | Send a Working Application Periodically. | Use the last working version of the application | High |
| Demo at presentation fails | Low | Test a hour before the demo if everything is still working perfectly | Ask to reschedule the demo | High |

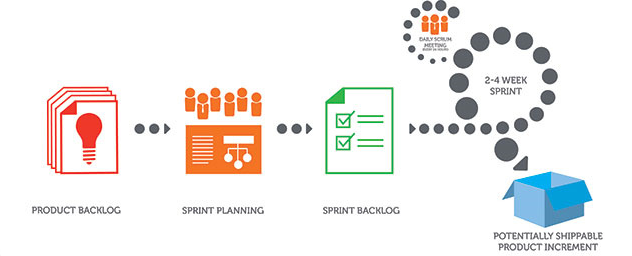
## Project phasing

## Development Methodology

**Scrum methodology**

Scrum is an Agile framework for completing complex projects. Scrum originally has been formalized for software development projects, but it works well for any complex, innovative scope of work. The possibilities are endless. The Scrum framework is deceptively simple.

The Scrum framework is usually practiced in cycles of 2 weeks. Each cycle is called a sprint. It starts with a planning session, called Sprint planning and ends with a demo (showcase).



# **Mosquito**

## Skills

In order to complete this project, the following skill are required:

**Technical**

* NodeJS
* ReactJS
* Xamarin
* Git

**Non-Technical**

* Project Management
* Pair Programming
* Professional Meeting

## Quality

In order to deliver a good quality end product. There are some Indicators that need to be followed. They are,

1. **Periodic Meeting with The Client**

Periodic meeting is purposed to understand the client’s needs and what can be improved from the previous implementation.

1. **On Time Delivery**

Following the Project Plan Time Table to ensure delivering product before deadline.

1. **Testing Before Delivery**

A test on the application should be conducted before the product delivery to the client. So that, the client receives a fully working application.

1. **Code Review**

By doing Code Review, it ensures the coding standard of the application.

## Information

## Time

## Organization

## Communication Plan

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Communication Purpose | Communication Type | Frequency |
| Client | 1. Updating Progress  2. Application Feedback | 1. Email  2. Meeting |  |
| Mentor | 1. Document Feedback. | 1. Email  2. Meeting |  |
| Within Group | 1. Planning a Meeting with Client or Mentor.  2. Helping the Others. | 1. Meeting  2. Messenger |  |