 Statement and Confirmation of Own Work

|  |
| --- |
| ***A signed copy of this form must be submitted with every assignment.***  ***If the statement is missing your work may not be marked.*** |

Student Declaration

I confirm the following details:

|  |  |
| --- | --- |
| Candidate Name: | AMAAN AL MIR |
| Candidate ID Number: |  |
| Qualification: | L5DC |
| Unit: | Computing Project – Project Proposal |
| Centre: | APTECH QATAR |
| I have read and understood both NCC Education’s *Academic Misconduct Policy* and the *Referencing and Bibliographies* document. To the best of my knowledge my work has been accurately referenced and all sources cited correctly.  I confirm that this is my own work and that I have not colluded or plagiarised any part of it. | |
| Candidate Signature: |  |
| Date: | Feb 6, 2023 |



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# Cover Page

**WEB CHAT**

PROPOSAL

Prepared by

**Amaan Al Mir**

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Introduction

# Introduction

To deliver the most impressive, simple and private online chat application, I present to you WebChat.

In an internet-driven era where communication is crucial, where everyone is so interconnected with each other, envision a place where you can open a small private club or a worldwide community. Where you and your family and/or a group of companions can lay out together. A spot that makes it easy to interact every day more often without worrying about anyone spying on you or reading your data. WebChat will turn this imagination into reality.

An overview of what this web application is will also be presented in this proposal, including the project timeline, breakdown of costs, and critical key activities.

I am very excited to work on this project, and thank you for granting me such wonderful opportunity to work on finding a solution to your problem.

# Problem & Solution

The main problem with using public chat applications or forums is that your data is at risk. It is visible to everyone. It is accessible to people you may not want to give access to. Opening an account is such social platforms will introduce you to people you want to avoid meeting. Such places become hard to hang out with your immediate friends and family. This can also cause companies who only want to communicate with their employees privately. Surely, there are emails but they are not the best when it comes to quick and easy casual communications.

The solution to this problem is to build a private place where you’re in control. A platform limited to people you meet every day, people you know in real life, like people in your home, office, school, or your local network, or people you choose particularly to grant access to your application. A place where you decide to have either ten, hundred, or thousands of people. An organized server where you can collaborate with your friends and colleagues about your day or work.

# Justification

* This platform will help people around them open up to each other without worrying about someone watching them.
* Creating an invite-only place will elude unwanted people.
* Having absolute control over the system will prevent data leaks and protect user privacy.
* Sending and receiving messages will become much easier, quicker and safer.
* There will be no need to connect to any third-party applications unless you want to. For instance, only people with a valid school or office email can register.

# Main Features

The project’s main aims and features are to send real-time messages and/or images to registered users. Messages can be sent either to an individual privately or to all registered members publicly.

Sending messages to everyone.

Sending private messages to an individual. Same steps as above, plus:

# Objectives

* Implementing individual authentication system.
* Implementing an email verification system.
* Implementing SMS authentication (2FA) system.
* Implementing external logins for quick access.
* Designing a database system to store messages, images, and other user details.
* Creating a connection between users to send real-time messages.
* Designing a system to retrieve old messages and images and display them in new connections.
* Designing a database system to create relationships between two users.
* Designing a database system to store private messages and images.
* Designing responsive interface.
* Testing application and system performance.

# Roadmap

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| STAGE | | START DATE | FINISH DATE | | DURATION | |
|  | Planning | Jan-1-2023 | Jan-5 | | 5 days | |
|  | UX Design | Jan-6 | Jan-15 | | 10 days | |
|  | Wireframe | Jan-16 | Jan-20 | | 5 days | |
|  | Prototyping | Jan-21 | Jan-26 | | 6 days | |
|  | Pre-development meeting with Developers | Jan-27 | Jan-31 | | 5 days | |
|  | Development Phase | Feb-1 | Feb-25 | | 25 days | |
|  | Application Testing | Feb-26 | Feb-27 | | 2 days | |
|  | Launch | Feb 28, 2023 | | 1 day | |
| Total Duration: | | | | 2 months | |

## Gantt Chart

## One-Time Expenditure

|  |  |  |
| --- | --- | --- |
| INVOICE # | OPERATION STAGE | COST |
| First Invoice | Planning | QR 5,000 |
| Second Invoice | UX Design | QR 10,000 |
| Third Invoice  (Once the prototype is approved.) | Wireframe | QR 20,000 |
| Prototyping |
| Fourth Invoice  (Showcasing the whole web application to the client.) | Pre-development meeting with Developers | QR 65,000 |
| Development Phase |
| Application Testing |
| Launch |
| Total Expenses (one-time): | | QR 100,000 |

## Monthly Expenditure

|  |  |
| --- | --- |
| SERVICES | COST |
| Twilio (SMS Authentication / 2FA) | Starting from QR 60 |
| SendGrid (Email Verification) | Starting from QR 70 |
| Azure SQL Database (Not required if hosted on a local machine) | QR 1820 (average) |
| Azure Hosting | FREE (If self-hosted) |
| Maintenance (If not self-hosting) | QR 2000 |
| Total Expenses (monthly): | QR 4,000 (average) |

**Note:** Most of these services are either pay-as-you or usage-dependent services. There is no fixed term besides the web app maintenance which is done by me and is also optional if not self-hosting.

## Yearly Expenditure

|  |  |
| --- | --- |
| SERVICES | COST |
| Domain (Optional / Not required if hosted locally) | QR 55 (average) |