Cost Estimation:

A screenshot of a social media post

Description automatically generated

A screenshot of a cell phone

Description automatically generated

Explanation of chosen parameters:

The literature below provides justification for chosen metrics in the calculation of cost using the COCOMO II model. While most of the criterion were left as the default value, a few were changed as the development team felt these were the parameters that would sculpt the model to a more fitting representation of the project.

**Source Lines of Code *(New)*:**

Since relatively few products of a similar nature, an estimate of the new source lines of code was compiled based on the advice of professionals in the field.

Source Lines of Code *(Reused & Modified)*:

Reason: Code for certain features in the app can be found online

Team Cohesion:

This was set to low as company is a start-up therefore team members are not fully acquainted with each other.

Data Base Size:

This was set to very high as the system is very data oriented, collecting information on many users.

Programmer Capability:

This was set to very high as the company should strive to seek the highest quality of talent.

Product Complexity:

This was set to high as the system comprises of various disciplines.

Time Constraint:

This was set to very high as it should of the utmost importance to that company that this should be delivered on time to achieve maximum customer satisfaction. This is also important for a start-up since reputation needs to build.

Cost per Person-Month:

The value was set to $9000.00USD as this is the average salary of senior software engineers. (*Source: Glass Door*)

Annual Change Size (ESLOC) *(Maintenance):*

The value selected here was 4500 as research showed that on average software updates alter 30 % of a product’s code base. (*Source: CIO Magazine – International Data Group*)

Maintenance Duration:

The value selected was 0.08 as this roughly equates to once per month

Calculating Net Costs:

We must now calculate the fixed costs and hardware costs before calculating the net cost.

There is no hardware cost as this project does not need additional hardware. Estimating a total of $4500.00 USD per month of rent and utilities, we can now calculate how much it would amount to by the end of development this app.

|  |  |  |
| --- | --- | --- |
| Rent and Utilities | Months | Total Cost |
| 4500 | 16 | 72000 |

Therefore, the estimated total cost of the product is:

|  |  |  |  |
| --- | --- | --- | --- |
| Development Cost | Rent and Utilities | Maintenance | Total Cost |
| 739913 | 72000 | 191420 | **1,003,333** |

Total Cost= **$1,003,333.00USD**.