EECS 448

CLOUDF

MAINTENANCE PLAN

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OVERVIEW

Cloudf is a cloud storage service accessible from any web browser. The service allows the creation of user accounts, logging in to said user accounts, and storing any type of file in a user specific cloud storage allocation. Due to the nature of the service, a variety of sources of financial burdens exist when calculating a maintenance plan. These sources include domain name fees, server costs, costs of a developer team, costs of a support team, and general costs related to company logistics. Detailed information regarding each source of financial burden is below, as well as a final summary of the total financial burden of operating Cloudf for one year.

DOMAIN

The ideal domain name of `cloudf.com` is unavailable, however, similar domains are available that would provide appropriate name recognition and trust for Cloudf's immediate and future user base.. Domains such as `cloudf.cloud` or `cloudf.xyz` would be suitable for the service, and cost `$30.00 USD` a year to possess. These prices are sourced from Google Domains as well as Squarespace, and the prices for similar domains range between `$20.00 USD` and `$50.00 USD` per year. For the sake of simplicity, a middle-ground price point will be taken from this data, and the cost for an appropriate domain name for Cloudf will be noted as `$35.00 USD` for one year.

Domain Costs
$30.00 USD yearly

SERVERS

Cloudf will require significant storage to accommodate a decent number of users during the first year. This number of users will be expected to increase by 5,000 every month, beginning with zero initial users at month one. 45Drives will be used as the hardware provider as the company offers an ideal dedicated server configuration option. Costs of electricity are not included in this computation as prices vary across the nation.

For month one, the initial server hardware must be acquired, and during each subsequent month additional storage will be acquired and added into the existing server. This initial server consists of a dual-socketed motherboard with E52620 processors, 32 GB of ECC RAM, a 10 GB NIC, a 120 GB boot drive loaded with `Ubuntu 18.04 LTS`, and two Western Digital Gold 12 TB HDDs. The price tag for this server configuration is $12067.00 USD.

For eleven months after month one, an additional two Western Digital Gold 12 TB HDDs. Each of these monthly drive acquisitions will cost $930.00 USD. This drive addition is computed on the basis of each user using nearly all of their initial 5 GB cloud storage allocation, and the total user base of Cloudf increasing by 5,000 each month.

Server Costs	
Month one	$12,067.00 USD
Months two through twelve	$10,230.00 USD
Total	$22,297.00 USD

DEVELOPER TEAM

In order to maintain a consistent acquisition of new users, a development team consisting of software engineers, Q&A engineers, and a system administrator must be formed. Each portion of the team will have different roles. The software engineers will be responsible for

developing and implementing new features and iterations of the product, the Q&A engineers will be responsible for ensuring all code written by the software engineers meet the company's software testing standards, and the system administrator will be responsible for overseeing the server infrastructure discussed previously.

For the first year of operation, a team of four software engineers will suffice. According to latest information from ZipRecruiter, the national average salary for an entry-level software engineer is $62,949.00 USD. Cloudf will match this salary for each of it's four software engineers.

Three Q&A engineers will be appropriate for the first year of operation. According to latest information from ZipRecruiter, the national average salary for an entry-level Q&A engineer is $51,050.00 USD. Cloudf will match this salary for each of it's three Q&A engineers.

One system administrator will be employed by Cloudf for the first year of operation. According to latest information from ZipRecruiter, the national average salary for an entry-level system administrator is $76,872.00 USD. Cloudf will match this salary for it's one system administrator.

Developer Team Costs	
Software engineers	$251,796.00 USD
Q&A engineers	$153,150.00 USD
System administrator	$76,872.00 USD
Total	$481,818.00 USD

SUPPORT TEAM

A team of three support engineers will be required for the first year of operation. This team will be tasked with responding to any and all reasonable user submitted issues. These issues include regaining access to an account, general help regarding the Cloudf service, general questions regarding privacy or data security pertaining to the Cloudf service as well as any other user question, and escalating any issues to the appropriate members of the development team.

According to latest information from ZipRecruiter, the national average salary for an entry-level support engineer is $44,263.00 USD. Cloudf will match this salary.

Support Team Costs

Support engineers	$132,789.00 USD

LOGISTICS

In order to avoid the majority of office space related costs, employees of Cloudf will work remotely until an appropriate active user threshold is met. However, not all office space related costs can be avoided. Each of Cloudf's thirteen employees will require an adequate computer set-up to complete their work comfortably and efficiently. This set-up will consist of an `Apple MacBook Pro`, two `LG 34WK95U-W` monitors, an `Apple Magic` keyboard, as well as an `Apple Magic` mouse.

Logistics Costs

Apple MacBook Pro	$31,889.00 USD
LG 34WK95U-W	$15,400.00 USD
Apple Magic keyboard	$1,419.00 USD
Apple Magic mouse	$869.00 USD
Total	$49,577.00 USD

SUMMARY

This report has outlined and detailed each of the financial burdens Cloudf will be accounting for during the first year of operation, as well as the contingencies regarding each source (as applicable). Below is a summation of the costs discussed throughout this report to deliver a singular, final cost for one year of operating Cloudf.

Cloudf Maintenance Costs, Year One

Domain Costs	$30.00 USD
Server Costs	$22,297.00 USD
Developer Team	$481,818.00 USD
Support Team	$132,789.00 USD
Logistics	$49,577.00 USD
Total	$686,511.00 USD