

Maintenance Plan:

We want to maintain an image translator application to linux users. For maintenance, we have a domain, functional website, and server to host on. The domain can cost as little as seven dollars a year, and there are simple server hosting services like google cloud that can store our network data, which we should have very little of. An example payment plan similar to what we would need costs as little as \$1.19. In the future, we may pay a worker to maintain the website, but the code is open-source, so some additions can be done by the customers. We could also save a lot of money if we spend time developing a simple website to start. In total, the cost of website maintenance would be \$7/yr + \$1.19/month. However, to scale the project, we might upgrade our website. This could cost anywhere from \$2500 to \$5000. We might want to add new features like including the functionality of our program in the browser, in which case we would need a quote from a cloud services provider for the pricing of hosting our web app. However, if we wanted a generic new feature, we could estimate the cost by looking at our inventory of projects with how long they took and compare that to the skills of a private software contractor. Since our project is relatively small, we could hire a software engineer at \$50-\$75/hour. For something like implementing web functionality, we estimate that it would take 100 hours for an inexperienced developer. $100 * (50 \text{ or } 75) = \$5000 - \$7500$. However, new features vary in size, so keep in mind that this is just an example. In total, we want to allocate 150 hours to the addition of new features over the course of the next year despite it being open-source. This would cost anywhere from \$7500-\$11250.

Additionally, we will have to keep up with new defects by updating our defect tracking sheet as new releases come out. This could be done by our group or a private contractor. They would have to update the defect tracking sheet over the course of a year while fixing bugs and adding regression tests to the testing suite. Our team estimates that maintenance for bug-fixing will cost about 15 hours per month to maintain which makes 180 hours per year. A privately contracted software engineer that could perform this task would cost anywhere from \$50-\$75/hr. $180 * (50 \text{ or } 75) = \$9000 - \$13500$ for the next year.

In total, we have cost for maintaining the website, upgrading the program, and fixing bugs over the course of the next year. The cost for maintaining the website is \$21.28, but could increase in cost depending on the features we want to add. The cost for upgrading is \$7500-\$11250, and the cost for fixing bugs is \$9000-\$13500. Adding these all up we get that maintenance for the next year will cost \$16521.28-\$24771.28 with bug-fixing using most of our budget.

References:

<https://www.fullstacklabs.co/blog/software-development-price-guide-hourly-rate-comparison>