**Group 4**

Risk Mitigation Plan

10/25/2012

|  |  |  |
| --- | --- | --- |
| ID | Risk | Mitigation |
| 1 | We might have issues with SSL support in our HTTP Request library. As previous projects have had issues with this, the likelihood of some impact is fairly high, but the impact is relatively low as the user story is a low priority. | This can be mitigated by research. Appropriate design modularity should also allow us to swap out the Request library without much trouble if we run into problems. |
| 2 | We could have communications problems with the report viewer and the web crawler. As they are written in different languages and running as completely distinct processes, we could potentially run into problems moving data between them. This is a relatively low likelihood, as database communication in python and php are both well-trodden ground, but the impact would be severe. | A backup plan might be to use python to generate JSON directly from pickled object from the web-crawler, or potentially generate one shot reports directly in the web-crawler, though these options are both less flexible. |
| 3 | We could have integration problems between the web crawler and the web interface. Other projects have had issues communicating between the two pieces, and being able to start the webcrawler from the web interface is a high priority. | Research is again a key defense against this failure, as these problems have certainly been widely encountered. Richard W. Stevens’s Advanced Programming in a Unix Environment, while written in C, covers many of the pitfalls of IPC and daemonized processes in this environment, and careful reading should produce solutions to the most common problems which can be adapted for the languages in question. |
| 4 | We could have concurrency problems with the asynchronous communication between the web crawler and the web interface. This seems like a very low risk proposition, as updates only come from one process and receiving data that is a few seconds stale does not have any user impact. | This can be ignored. |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Impact | | | | | | | | |
| Risk | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9 |  |  |  |  |  |  |  |  |  |
| 8 |  |  | ID1 |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  | ID3 |  |
| 6 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 3 |  | ID3 |  |  |  |  |  | ID2 |  |
| 2 | ID4 |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |