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Project 3 Part 1

I ordered the testing order of the software on an A - D scale, with a being the top priority (first to be tested) and D being the least (last to be tested).

1. Test legacy code
   1. The legacy code is placed as primary priority for several reasons. The main reason is the consequences of the code failing. Unless the probability is low, the risk exposure of the legacy code is high. As described, the legacy code crashes frequently, and when it does the site is unavailable for multiple days. The combination of low reliability and down time. This results in extremely low availability of the site which is why testing the legacy code has top priority.
2. New code
   1. The new code will have the penultimate priority because it displays low probability of failure, but the consequences of failure will be catastrophic. Again, catastrophic consequences demonstrate that code that exhibits this behavior will require urgent testing. Although, because of the low probability of failure due to experienced developers, the risk exposure is medium and is placed at second priority.
3. APIs
   1. The APIs would take the next priority. The APIs have a high probability of failure, and the consequences would be critical. This combination would assign the API code to have a medium risk exposure. Although the API code and the new code share the same risk exposure, because the consequences are only critical, I would place the API code below the new code.
4. Outsourced
   1. The outsourced code is placed at the least priority because it exhibits both low probability and the consequences are marginal. It won't be likely that the code will fail, and if it does, the overall functionality of the site won't be impacted. Therefore, outsourced code has the lowest priority.
5. The intensity of testing required for each set of code corresponds to their risk exposure. Thus, the assignment is as follows:
   1. Legacy code requires maximum testing
   2. New code requires average testing
   3. APIs requires average testing
   4. Outsourced code requires minimal testing
6. A contingency plan is needed for the legacy code because it exhibits the highest the highest risk exposure. I would suggest having increased redundancy for the site. I would keep an older version of the site that is known to be stable on a backup server in case newer versions crash. Customers will automatically be redirected to the backup site. A banner message could be displayed to notify customers that the new website is down for maintenance and either it will be back soon or provide an estimated time.