

| Performance Test Plan Template |  | Revision 28/06/2021 |
|--------------------------------|--|---------------------|
| Purpose:                       | We will try to verify if the Reddit application can endure a normal and anticipated use of user. We will keep an eye on the response times and the error rate.   |                     |
| Website Description:           | Reddit is a community website for discussion and social news. Thus, the most popular links of the moment are displayed on the homepage. Its community is gathered around a culture specific to the history of the site and the Internet in general.  |                     |
| Performance Criteria           |  |                     |
| Goals:                         | With Load Testing we will try to verify if the application can endure a normal and anticipated use. We will keep an eye on the response times and the error rate.  |                     |
| Test Type:                     | Loading Test   |                     |
|                                | The purpose of this test is to determine the number of simultaneous and/or anticipated users that the system can support without experiencing significant service degradation.   |                     |
| Failure Criteria:              | A test run will be considered “failed” if any of the following conditions are met: <ul style="list-style-type: none"><li>The application does not handle the required amount of load, generating errors or performance issues and response times.</li><li>Loose of Reddit’s accessibility to customers</li></ul>   |                     |
| Validation Criteria :          | A test run will be considered "Pass" if one of the following conditions is met: <ul style="list-style-type: none"><li>The error rate should be below 5%</li><li>Response time should not vary and be stable</li></ul>  |                     |
| Technical Requirements         |  |                     |
| Environment:                   | Programming Language: <ul style="list-style-type: none"><li>Python</li></ul> HTTP Server Technologies: <ul style="list-style-type: none"><li>NGINX / HAProxy</li></ul> Server Libraries: <ul style="list-style-type: none"><li>Pylons</li></ul> Databases and NoSQL Datastores: <ul style="list-style-type: none"><li>MemCached / PostgreSQL / Cassandra</li></ul> Server Software: <ul style="list-style-type: none"><li>RabbitMq</li></ul> Cloud/Hardware Infrastructure: <ul style="list-style-type: none"><li>Amazon Web Service</li></ul> |                     |

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|                           | 3 <sup>rd</sup> Party APIs/Services: <ul style="list-style-type: none"> <li>• STRIPE</li> </ul>  |
| <b>Credentials:</b>       |  |
| <b>Telemetry:</b>         | We need to measure some metrics: <ul style="list-style-type: none"> <li>• CPU/Memory/Disk usage</li> <li>• Error rate</li> <li>• Response Time</li> </ul>  |
| <b>Load Profile</b>       |  |
| <b>User Lifecycle:</b>    | Only registered users and logged users have access to the file downloader system. <p>Steps:</p> <ul style="list-style-type: none"> <li>• Home page (Large volume of data received/low volume of data sent).</li> <li>• Login or registration (low volume of data received and sent).</li> <li>• Search on reddit the publication r/france (large volume of data received and sent).</li> <li>• Click on the discussion (large volume of data received and sent)</li> </ul> |
| <b>Concurrency:</b>       | The number of users will normally stagnate and lead to a search rate equal to the number of users.   |
| <b>Post-Test Analysis</b> |  |
| <b>Data collection:</b>   |  |
| <b>Reporting:</b>         |  |
| <b>Summary:</b>           |  |