**Test Plan**

**Layout**

The layout of the test found in the Testing – General document is broken into 3 sections, the first section is what I am going to call the compatibility section this is intended to ensure the cross device functionality of GUN is working correctly, I personally had some issue with getting things to work properly on mobile as a result of bugs so it is best to test this early and often so you know where you stand in relation to correct function across devices.

Next is the section based on connection, this part is ensuring that GUN can access the online repository for jQuery, which is needed for writing and executing GUN code. It would also apply to web RTC repository but due to bugs it is currently not in use so therefore it is not being tested. Both, most importantly in this case jQuery is stored on a website called jsDeliver. Previously we would of included GUN code as part of this but I suggest the GUN code is accessed locally to prevent breakages. The second aspect of this is based around the peers that are needed to connect users together and ensuring connection to them is vital for proper function.

Lastly is testing core GUN functionality and ensuring this is working properly, this will cover technical aspects like syncing data that had been entered while the user was offline.

**Descriptions**

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| **Tcase\_1** | This initial test is used to establish that all is working on your primary desktop device, I do recommend doing this on a PC as I had some issues with both laptop on mobile so to get a baseline I would use a PC |
| **Tcase\_2** | We use this test to develop our knowledge of the cross-platform functionality to ensure it works on multiple devices not just one this again is crucial as only using one device may give a false sense of correct function and when trying on a different device it may not work so it is best to ensure its working. |
| **Tcase\_3** | Function with mobile is an area I had difficulty with so making sure it working is again a key part of the first section of testing |
| **Tcase\_4** | Here we are testing to see if GUN is actually storing the data correctly, the reason we are clearing browsing data is to make sure that information is being stored by GUN not just being stored in the browser doing this alongside testing across devices can make us confident this works correctly. |
| **Tcase\_5** | Here we are exploring and testing one of the most unique and interesting core functions of GUN, it is claimed to allow users to enter data offline and it will sync when a connection is restored this must be tested to ensure data actually syncs and that nothing breaks when it does. |
| **Tcase\_6** | This quick test lets us know if the Realtime function of GUN is working correctly when a second user enters data it should automatically be visible to a second user without the need for refreshing the page. |
| **Tcase\_7** | This test is similar to the previous but what we are really testing is the ability for users to add data at the same time without breaking either piece of data for example data being mashed together by GUN |
| **Tcase\_8** | This test is to make sure that GUN has all the technologies it needs to function correctly |
| **Tcase\_9** | This test is to make sure that GUN has all the technologies it needs to function correctly |
| **Tcase\_10** | This test is probably the most interesting of all, this test is the most important test as it shows us can we really rely on GUN we want to know if we commit to storing data here can we be sure it wont disappear obviously for larger scale projects you will want to scale this test for more data to find the breaking point if that even exists. |