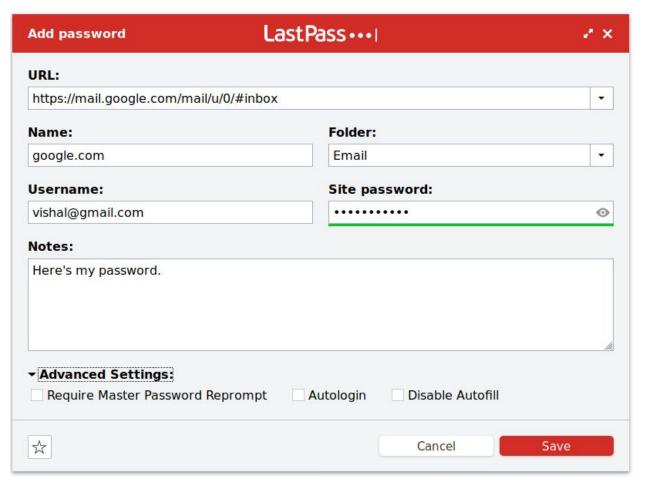**Measurable Deliverables for each milestone.**

Objective
The aim is to analyse the memory usage of top three password managers (PMs) that run on all the platforms. The objective at the end of this study is to have tangible results to compare the memory usage for each PM while also highlighting the lapses in security.

Platforms in use:
Windows, Linux, MacOS. (If time permits mobile OS too.)

Detailed Steps towards project completion :

1. Choose top 3 PMs that run on all the platforms. PMs will be chosen based on popularity, i.e the PMs with large user bases. Explore the PMs and their functionalities. Similarities and differences will be analyzed.

2. Examine first PMs memory usage on one platform. **(**We are working on just one platform in this step because doing it for the first time will take time. Once we get used to it, we can cruise through the other PMs.**)**
    a. Gather all the hardware and OS details of the first platform.
    b. Debug with default settings of a PM.
    c. Debug with enabling one functionality at a time. For eg., Autologin, Disable Autofill, etc.

Add password — LastPass •••|

URL:
https://mail.google.com/mail/u/0/#inbox

Name:
google.com

Folder:
Email

Username:
vishal@gmail.com

Site password:
•••••••••••

Notes:
Here's my password.

▾ Advanced Settings:
☐ Require Master Password Reprompt   ☐ Autologin   ☐ Disable Autofill

Cancel   Save

d. Look for discrepancies between company's security guarantees and the analysis results. Try to answer questions such as: are there any threats to the PM? Are the security controls in place sufficient to protect data leakage even though the OS may be compromised?

3. Examining First PM on remaining platforms and gathering results.
4. Examining Second PM on all the platforms and gathering results.
5. Examining Third PM on all the platforms and gathering results.
6. Start organizing and documenting the results. Decide what all parameters are we going to include in our paper. For ex., how does the memory usage differ with platform?
7. Paper submission.

Timeline

Milestone	Deliverable	Date
Choosing and analysing PMs.	Choosing top 3 PMs for the study and documenting their functionality and security policies.	23rd Nov 2019
Examine the first PM on one platform.	Choosing the debugging tools. Documenting the memory analysis results and answering various questions such as the ones mentioned above in step 2d.	29th Nov 2019
Examine the first PM on remaining platforms.	Updating the document with the analysis results obtained from remaining platforms.	1st Dec 2019
Examine the second PM on all the platforms.	Documenting the memory analysis results and answering various questions such as the ones mentioned above in step 2d.	4th Dec 2019
Examine the third PM on all the platforms.	Documenting the memory analysis results and answering various questions such as the ones mentioned above in step 2d.	7th Dec 2019
Organizing the results.	Organizing the documented results. Making an abstract plan of the details to be included in the paper.	9th Dec 2019
Final Paper	Final document in an appropriate format.	15th Dec 2019