

Sprint 3 Retrospective

Team 16 - xpac

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• What went well?

▸ User Story #1:

As a user, I would like to ensure that the packages served by xpac are not corrupt or malicious.

#	Task Description
1	Implement checksum verification of files fetched, utilizing the MD5 algorithm on client-side.
2	Implement the hashing functionality for MD5 on server-side.

▸ **Completed:** The client is able to perform validation on the integrity of file fetched from the server by comparing the hash generated using the MD5 algorithm on client-side to the hash stored on the server-side.

User Story #2:

As a user I would like xpac to utilize compression and decompression functionalities in order to efficiently manage my packages.

#	Task Description
1	Set up functions to compress and decompress package bundles employing common compression algorithms.

▸ **Completed:** The client untars the compressed the files sent over by the server, which are manually compressed by the package maintainer.

User Story #3:

As a user, I would like xpac to be able to handle versioning of packages.

#	Task Description
1	Implement difference trees for newer version of packages.
2	Implement existing graph algorithms to work with branching of existing packages with the aforementioned difference trees.

‣ **Completed:** The client is able to issue commands to list any updates possible, and is able to upgrade all packages listed available for updates.

User Story #4:

As a user, I would like xpac to be able to remove installed packages.

#	Task Description
1	Implement deletion of packages installed by xpac, whilst keeping care of not removing any dependencies required by any other packages.
2	Work with existing dependency tree model to calculate orphaned packages and remove them.

‣ **Completed:** The client is able to remove any packages which do not break existing dependencies. The client is also able to clean up any orphans resulting from any such deletions.

User Story #5:

As a user, I would like xpac to be a stable and robust piece of software.

#	Task Description
1	Set up stress testing for server.
2	Set up unit testing for client.

▸ **Completed:** The client and server are well tested, with both the client and the server being subject to a series of tests including unit tests, manual testing and stress testing.

• What did not go well?

User Story #6:

As a user, I would like to be able to tweak and customize xpac for a more personalized experience.

#	Task Description
1	If time permits, implement a xpac config file to tweak user preferences
2	Polish and refactor all of the implemented features in xpac to guarantee a great user experience

▸ **Not completed:** We were unable to implement configuration files for xpac as simply updation and deletion took most of our time this sprint. Therefore, we could not really devote time to plan and design the configuration system out and therefore could not delve into customization for xpac.

Also, compression of packages could be automated, which is being done manually now. This would make the work of the package maintainer easier, and would lead to higher productivity while maintaining packages.

- **How should you improve?**

CS 30700 provided us the opportunity to work on a project, spending considerable amount of time in brainstorming and formulating our own design for the product. We also learnt the importance of spending significant amount of time in research before delving into development. We could definitely have accomplished the goals we set out with better communication and task allocation between the team members as well as investing considerable time in forethinking and planning. However, all of us learnt our lessons during this endeavor and shall apply our knowledge later on when we continue our work in order to expand the scope of this project.