

Watch What I Do... But Not Too Closely

(preserving privacy when sharing programming-by-demonstration scripts)

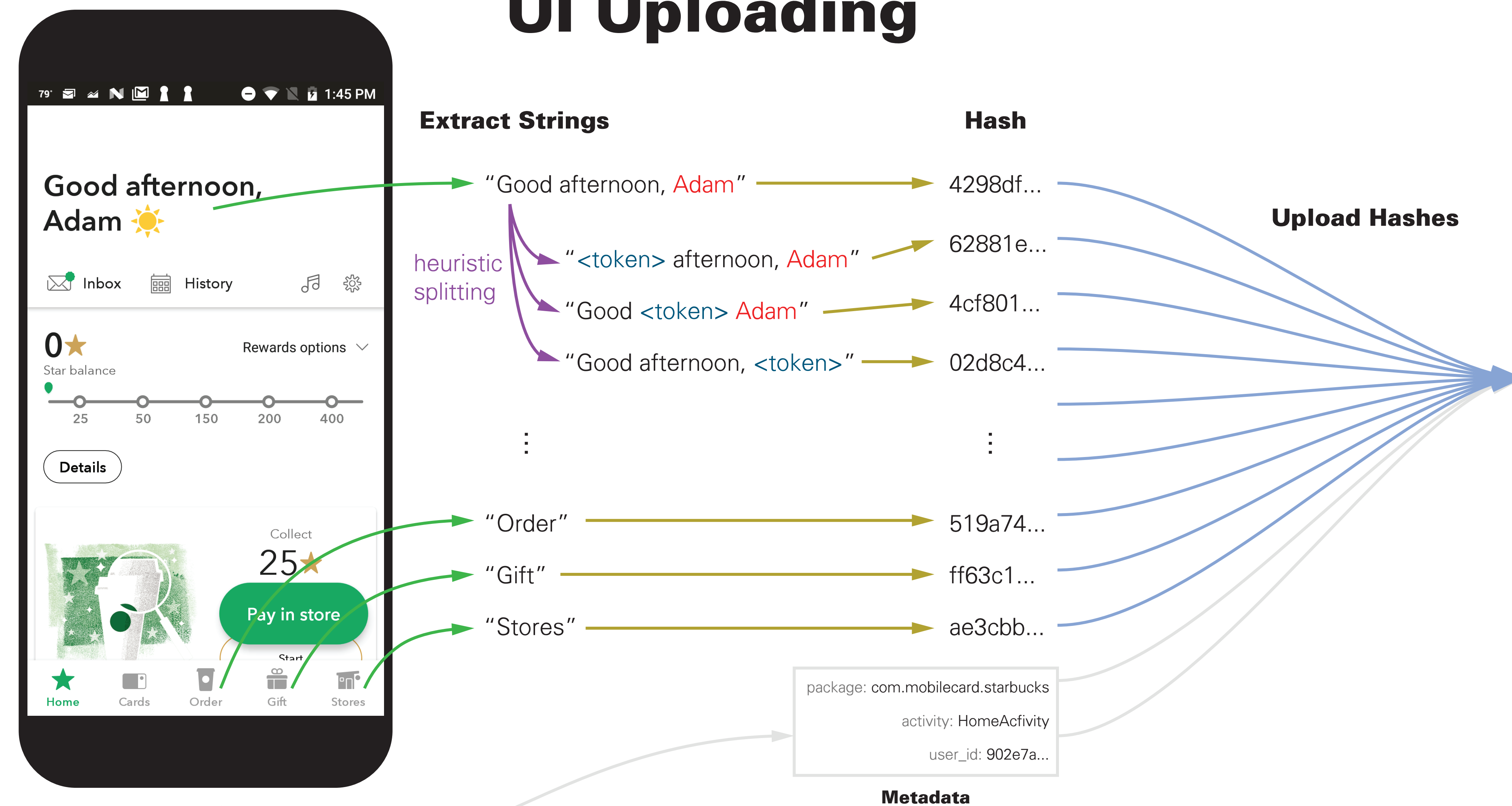
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Summary

GUI-based programming by demonstration is a powerful tool to enable end-user development. An unplanned side effect of end-user development is the desire to share scripts from one user to another. These scripts may contain private information about the creator that should not be revealed. We are working towards a system that removes this private information at share time without user intervention. This is particularly important in situations where we have large amounts of possibly private information (that is, too large for users to clean by hand) or when we want to collect scripts automatically from users phones as they run potentially automatable apps in everyday use. String hashes that appear on large numbers of phones are interpreted to be hashes of non-private strings.

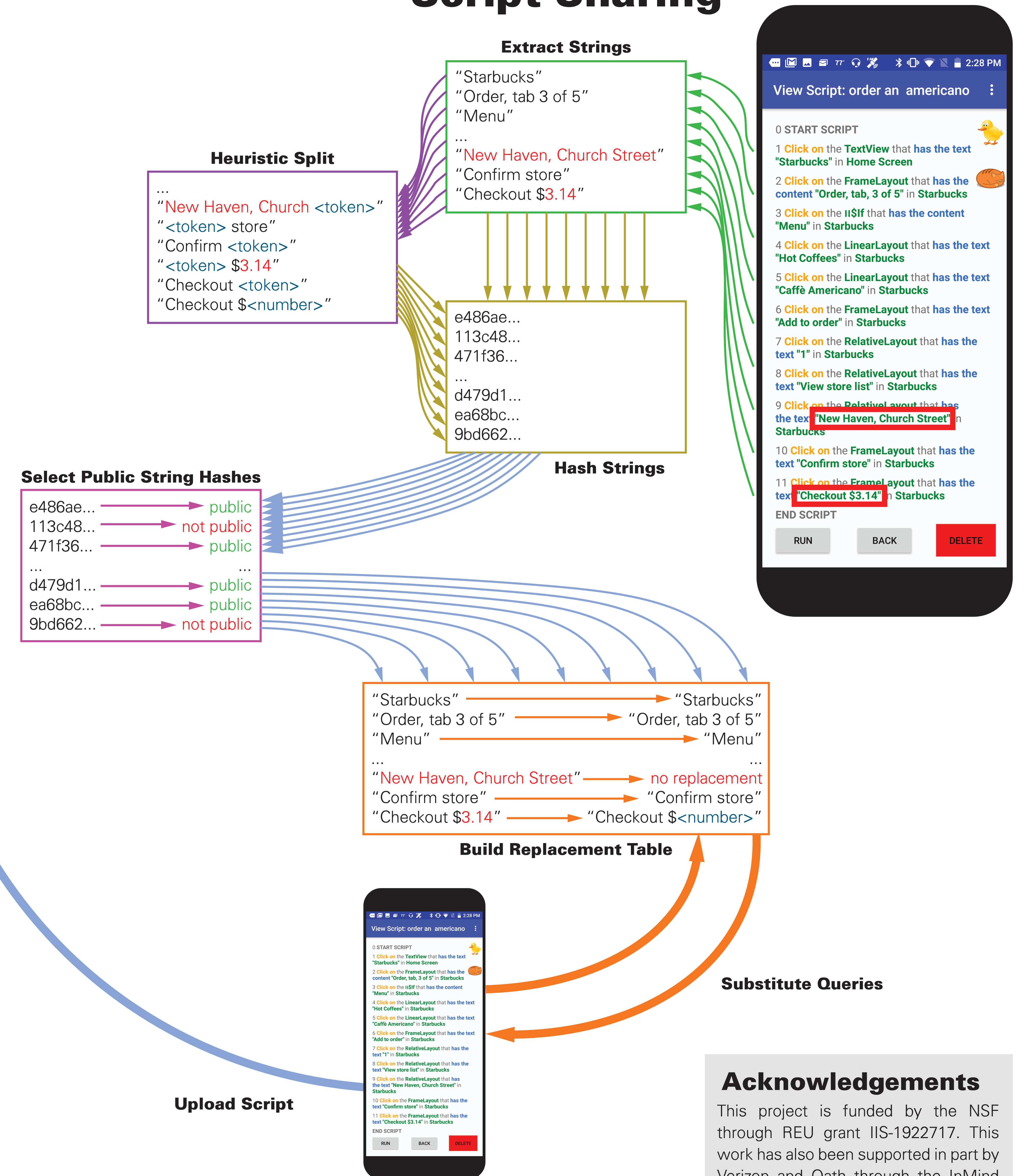
UI Uploading



Future Work

- Cleaning embedded information as well as script operations
- Automatically aggregating similar scripts from different users
- User study to determine if users can trust and predict behavior of downloaded scripts
- Repairing errors when shared scripts get stuck

Script Sharing



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