



INSTRUCTOR-COURSE
ASSIGNMENT

every year instructors have to be assigned to the courses that they will teach for a certain semester

THE CURRENT SOLUTION

an excel spreadsheet is being used to manage instructor-course assignments

AS WE ALL KNOW...

- excel can be a pain in the neck!
- 👎 it's hard to navigate
 - 👎 it's hard to manage
 - 👎 it only exists on the hard drive of the user's computer

THE NEW & IMPROVED
SOLUTION

develop a web-based application to manage instructor-course assignments!

THE BENEFITS

- advantages over the old solution
- 👍 allows for easy navigation & management
 - 👍 can be accessed via the web
 - 👍 allows for concurrent use
 - 👍 provides instructor-course assignment recommendations

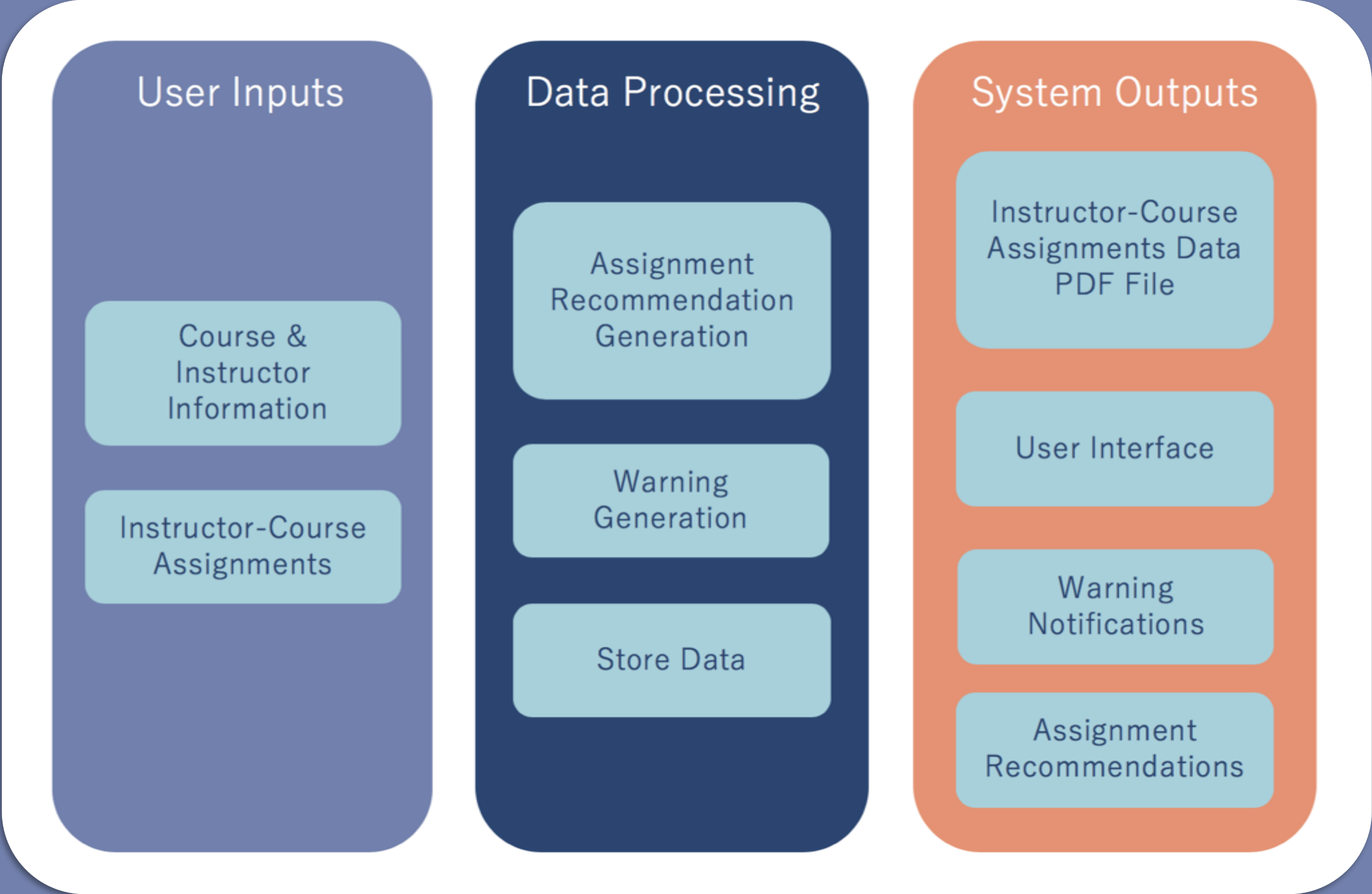
THE DREAM TEAM



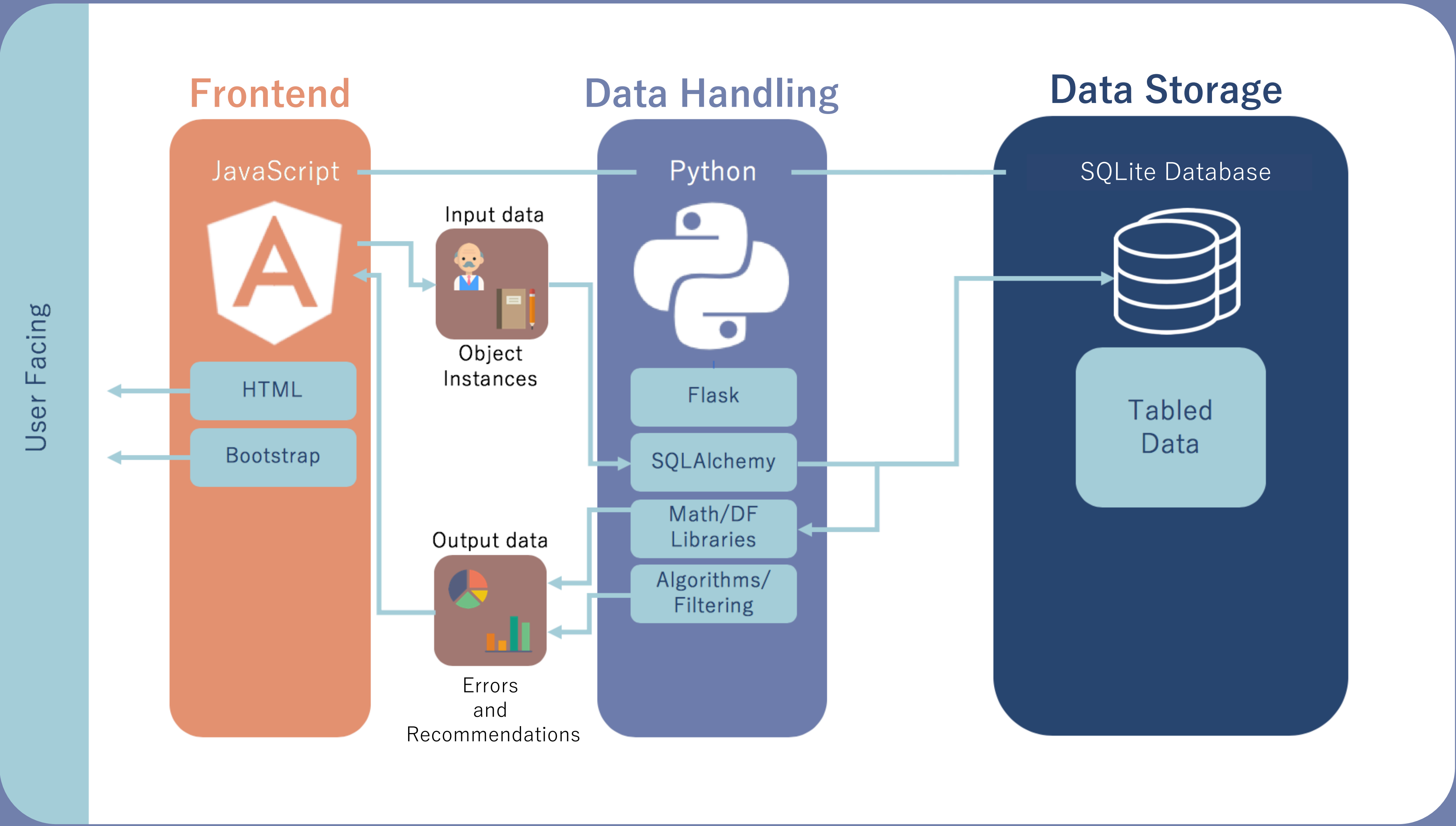
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THE APPROACH

IPO Chart



Software Interfaces



FRONTEND

angular provides data binding to HTML and a simple way to approach web design by using object oriented methodologies

DATA HANDLING

python provides built in math libraries and supports flask, which can provide a super lightweight API

DATA STORAGE

SQLite provides an easy and reliable way to store and manage data without having to add another point of connection

SOFTWARE FEATURES

- view instructors & courses
- add instructors & courses
- edit instructors & courses
- assign instructors to courses
- export instructor-course assignments (as an PDF file)

RESULTS

Test Case	Summary	Result
view/add/edit instructors & courses	consistent DB/UI mapping	pass
make an instructor-course assignment	warnings generated, DB/UI updated	pass
assignment recommendation	top 5 "best fit" instructors shown	pass
PDF export	PDF listing assignments	pass
response time	below 50ms on average	average 38ms
memory usage	below 500MB	average 42.8MB
security	encrypted data streams	pass
stability	software not crashed by random inputs	pass

A BIG THANK YOU!

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