PEER REVIEW DASHBOARD

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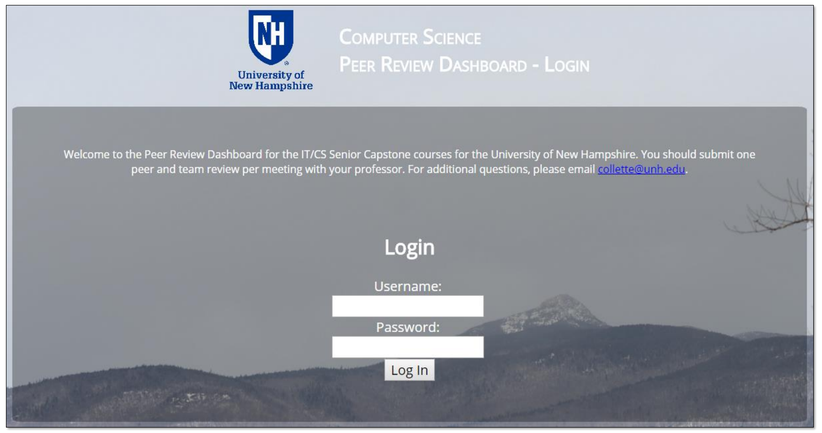
Problem Statement

- Google Forms is the current platform for CS/IT Senior Capstone Peer Reviews. This allows for little to no administrative abilities such as searching, scalability, data manipulation, and the like.

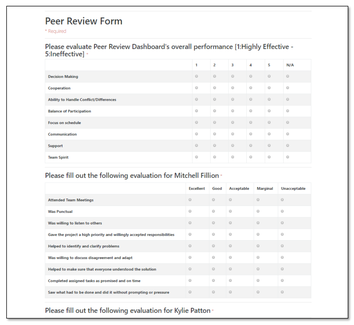
Additional Issues with Previous Format

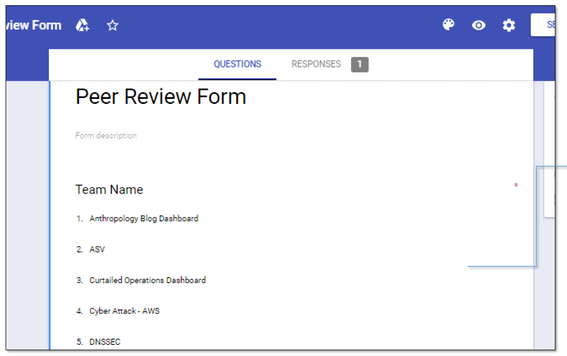
- Google tools only allows for viewing forms by submission
- No usable analytics for data being collected
- Need for customized creation, distribution, and analysis of peer reviews



Solution

- CS professors will be administrators
- Administrators will have the ability create and share review questionnaires with their students visa a secure web application
- Administrative portal will have the following capabilities:
  - A view of summary review data
  - Management of users and teams
  - Export data efficiently
  - Various statistic retrieval
  - And more!

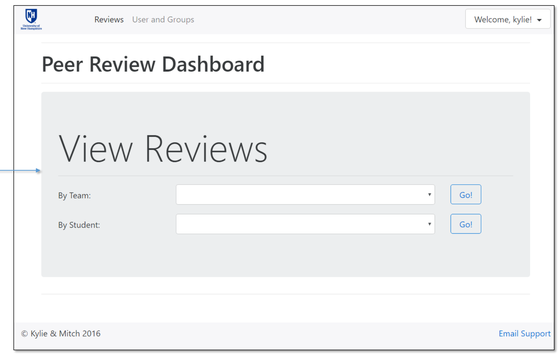


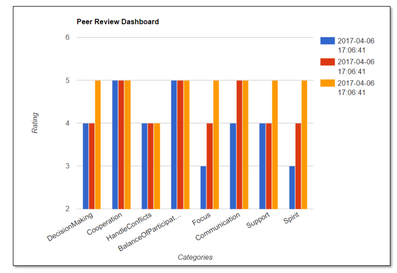


Comparison

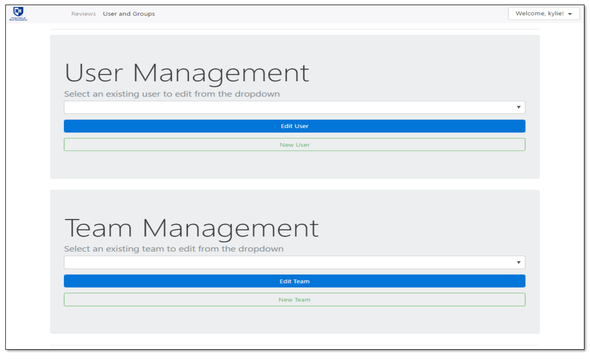
Old format: Google Form
- Date exported to an excel sheet
- Group size and other variables were not scalable
- No ability to search among reviews
- No efficient way for an administrator to manage or visualize data

New format: Website/Dashboard
- Unified engine
  - Manage users and teams directly from application
  - View responses by team or individuals



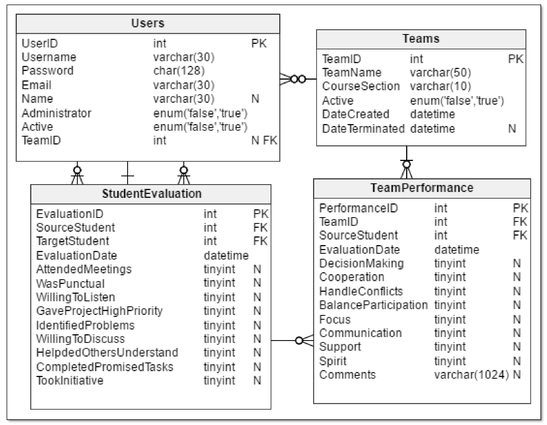


Technologies Used:



Security

The Peer Review Dashboard was built with security in mind.
- Secured with the latest standards to keep your data safe
- Encrypted connections using TLS 1.2 authentication protocol, ECDHE_RSA with P-256 key exchange, and AES_256_GCM ciper
- Advanced controllers prevent unauthorized access to web pages
- Backups are encrypted to help prevent data breaches
- Trust certificate: InCommon RSA Server CA



Backups & Reliability

Automated backups – ensures the data stays the way you intended it to.
- Crontab ensures that the backup scripts run reliably and predictably
- rsync keeps I/O operations low by only copying modified files

```
sending incremental file list
created directory /root/serverBackups/data
...

sent 3,738,192 bytes  received 818 bytes  7,478,020.00 bytes/sec
total size is 3,734,320  speedup is 1.00
```

Next Steps: Optimization & Usability

Optimization
- Code will be revised and optimized to reduce server overhead

Usability
- Application will be deployed to small test groups to determine areas of improvement
- Application will be revised to enhance usability based on user feedback