Decoupling a monolithic application to a more modern framework

Henry Maguire & Stuart Mallan

UCISA CISG-PCMG19

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Henry Maguire

Web Development Manager

Stuart Mallan

Java Framework Manager

Agenda

- Ever-changing landscape in Higher Education
- Barriers to changes
- Opportunities of a modern framework
- Preparing for migration
- Technologies
- How we manage the migration
- Questions

EVER CHANGING LANDSCAPE

GDPR

ePrivacy

Scottish Funding Council

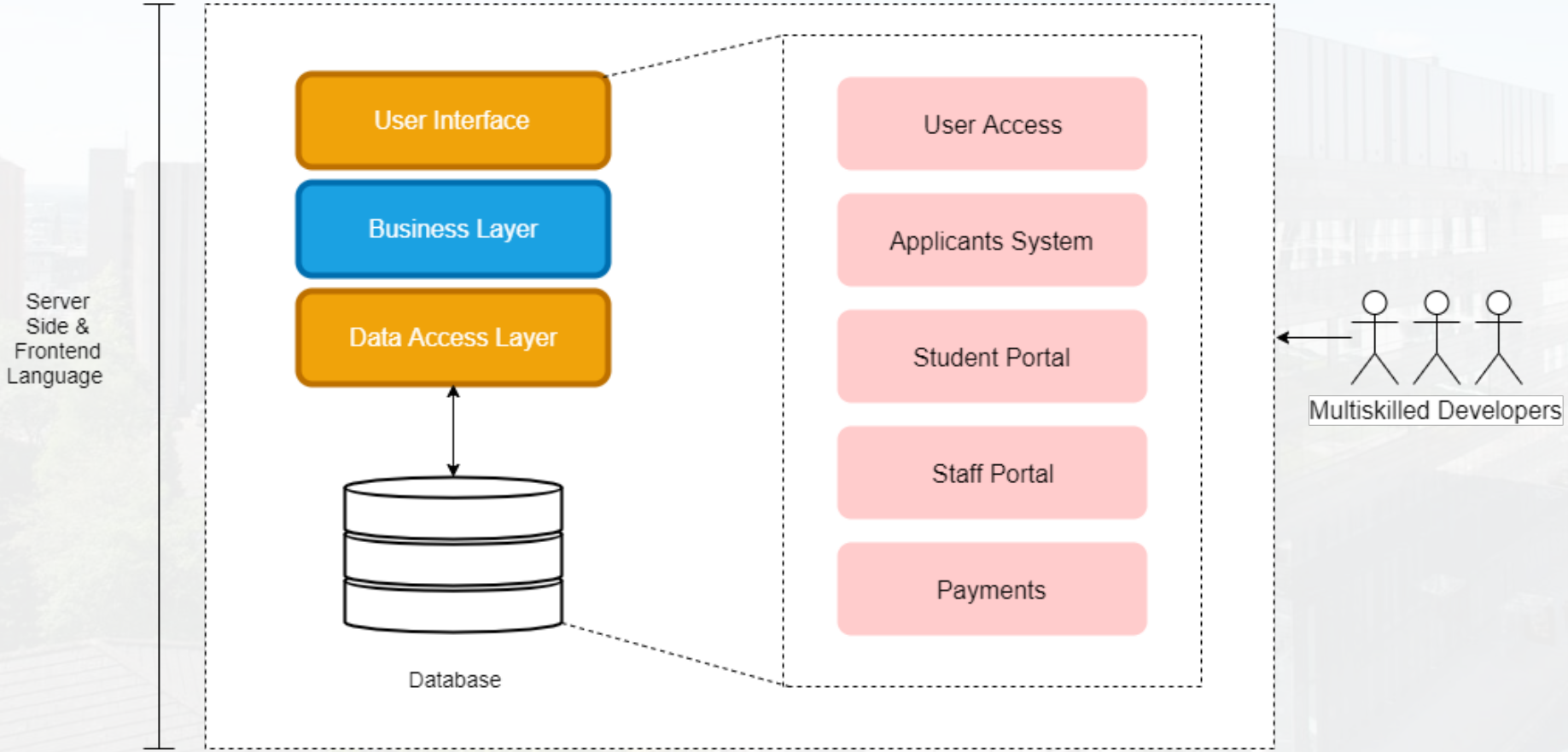
Promoting further and higher education

HESA

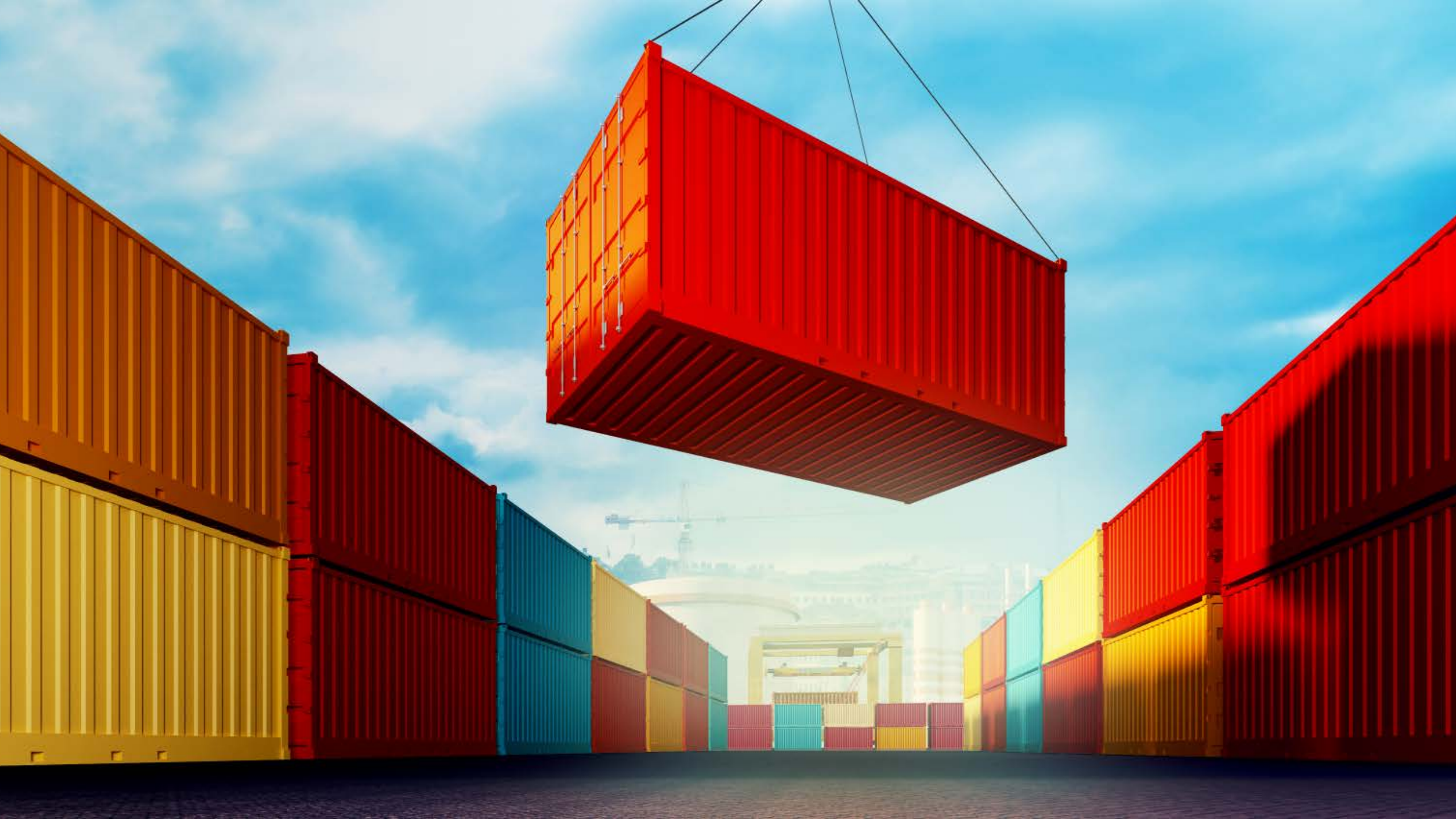
UCAS

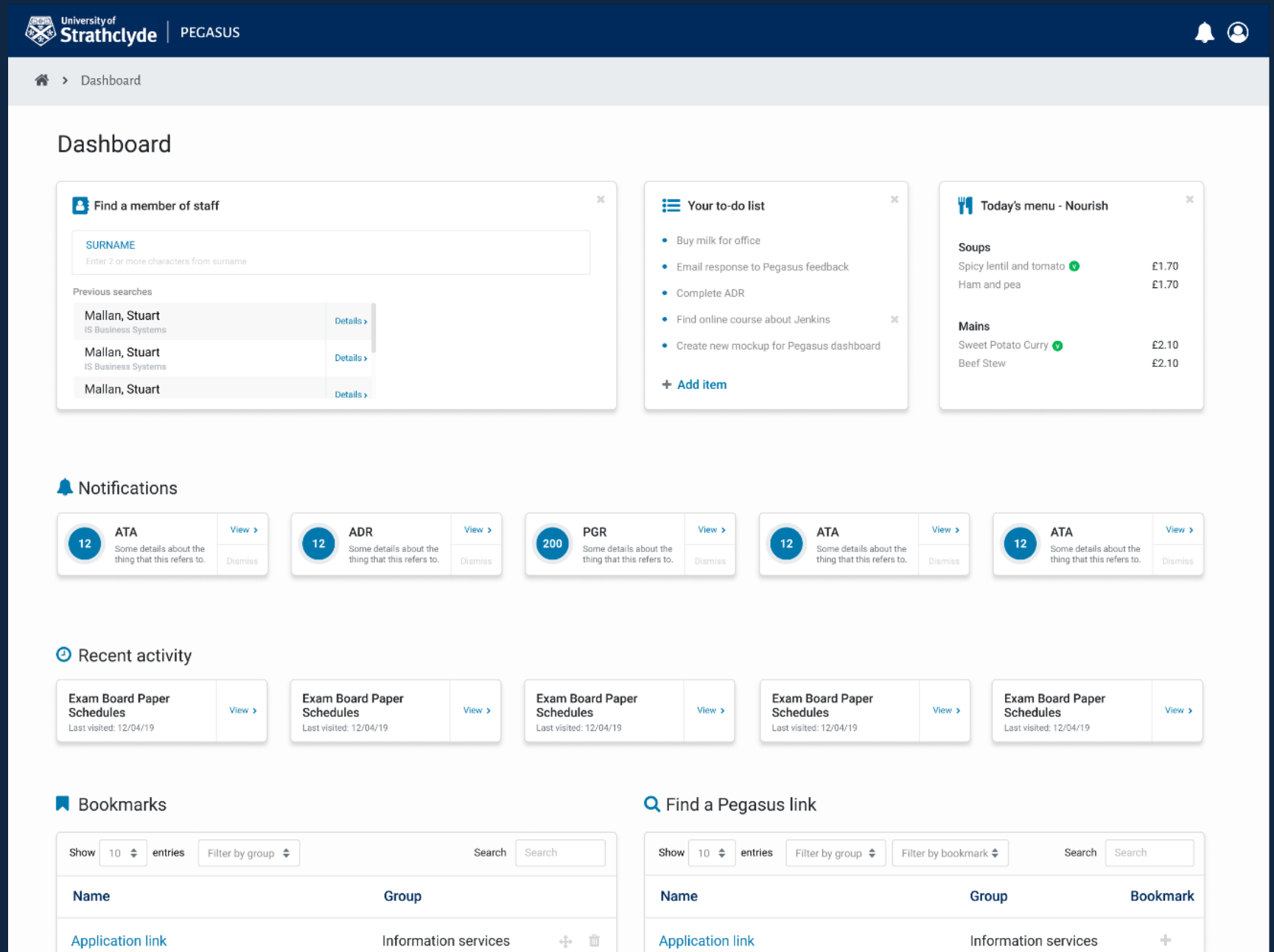
BARRIERS TO CHANGE

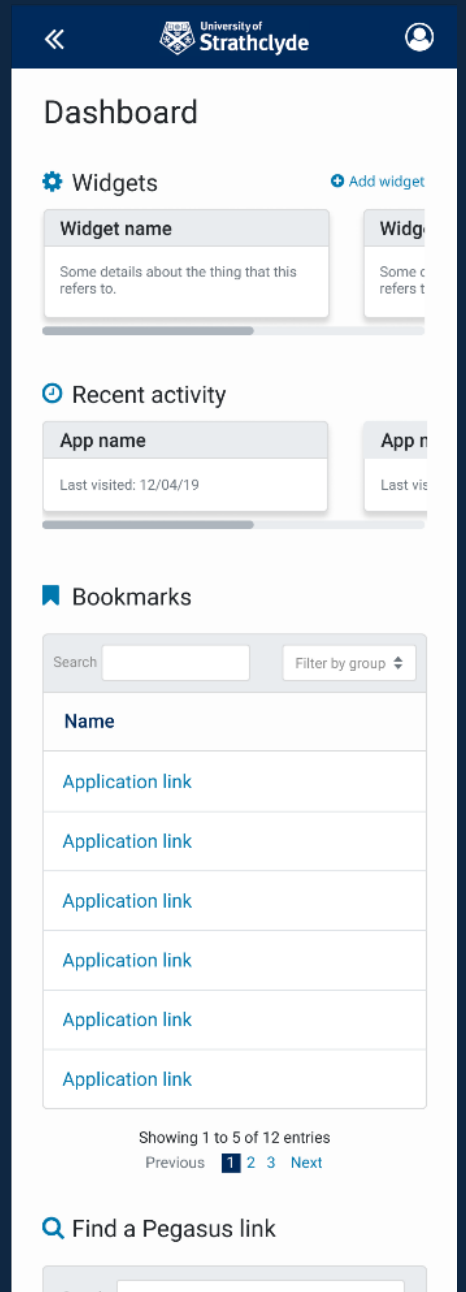
Monolithic / Coupled Architecture



OPPORTUNITIES OF A MODERN FRAMEWORK




University of Strathclyde | PEGASUS
Dashboard
Dashboard
Find a member of staff
SURNAME
Enter 2 or more characters from surname
Previous searches
Mallan, Stuart
IS Business Systems
Details
Mallan, Stuart
IS Business Systems
Details
Mallan, Stuart
Details
Your to-do list
Buy milk for office
Email response to Pegasus feedback
Complete ADR
Find online course about Jenkins
Create new mockup for Pegasus dashboard
Add item
Today's menu - Nourish
Soups
Spicy lentil and tomato
£1.70
Ham and pea
£1.70
Mains
Sweet Potato Curry
£2.10
Beef Stew
£2.10
Notifications
12
ATA
Some details about the thing that this refers to.
View
Dismiss
12
ADR
Some details about the thing that this refers to.
View
Dismiss
200
PGR
Some details about the thing that this refers to.
View
Dismiss
12
ATA
Some details about the thing that this refers to.
View
Dismiss
12
ATA
Some details about the thing that this refers to.
View
Dismiss
Recent activity
Exam Board Paper Schedules
Last visited: 12/04/19
View
Exam Board Paper Schedules
Last visited: 12/04/19
View
Exam Board Paper Schedules
Last visited: 12/04/19
View
Exam Board Paper Schedules
Last visited: 12/04/19
View
Exam Board Paper Schedules
Last visited: 12/04/19
View
Bookmarks
Show 10 entries
Filter by group
Search
Search
Name
Group
Application link
Information services
Find a Pegasus link
Show 10 entries
Filter by group
Filter by bookmark
Search
Search
Name
Group
Bookmark
Application link
Information services


University of Strathclyde
Dashboard
Widgets
Add widget
Widget name
Some details about the thing that this refers to.
Recent activity
App name
Last visited: 12/04/19
Bookmarks
Search
Filter by group
Name
Application link
Application link
Application link
Application link
Application link
Application link
Showing 1 to 5 of 12 entries
Previous 1 2 3 Next
Find a Pegasus link

Student Recruitment

As page load time goes from:

1s to 3s the probability of bounce **increases 32%**

1s to 5s the probability of bounce **increases 90%**

1s to 6s the probability of bounce **increases 106%**

1s to 10s the probability of bounce **increases 123%**

PREPARING FOR MIGRATION

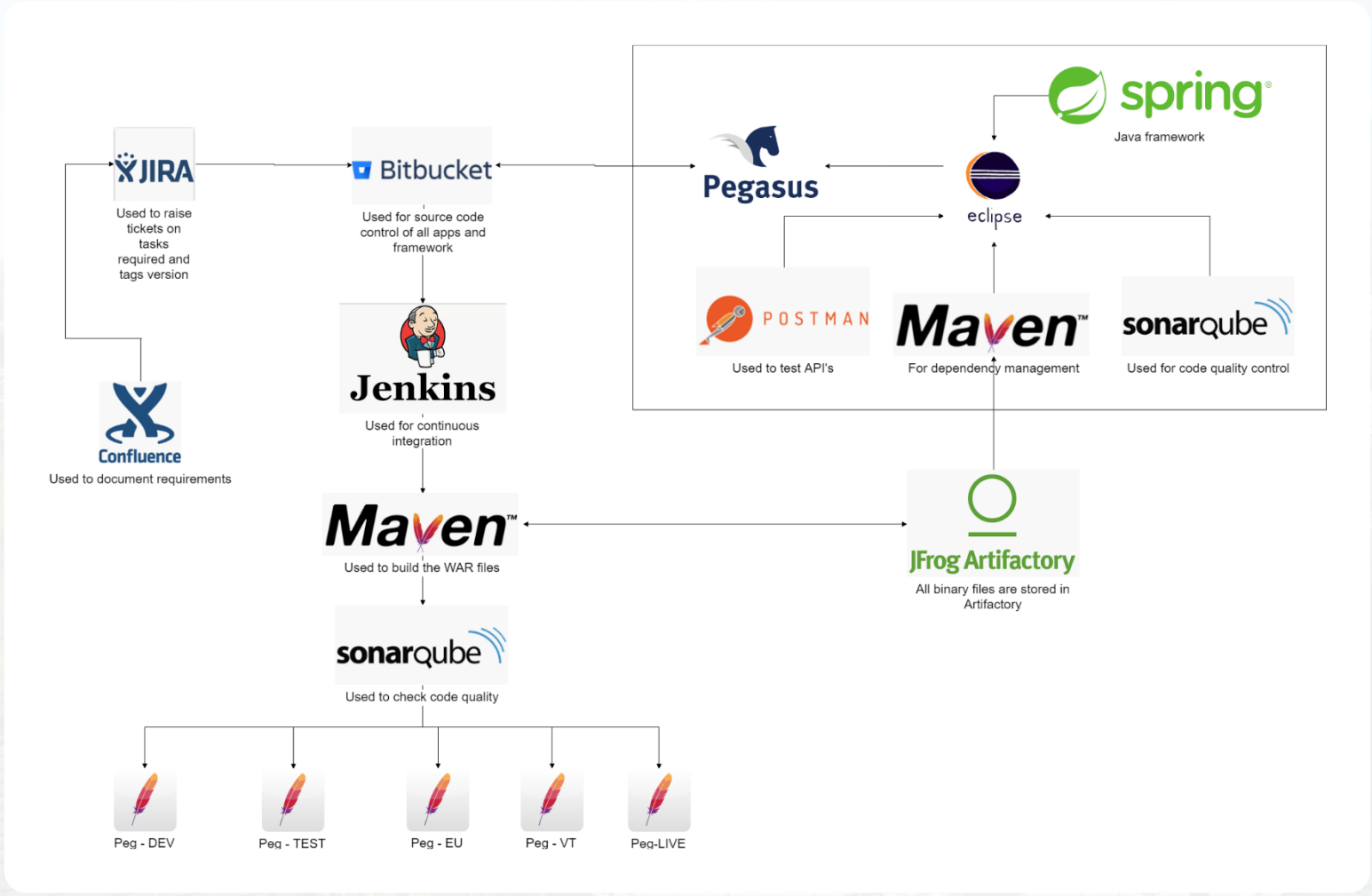
TECHNOLOGIES

User Interface Tools

Business Layer Tools

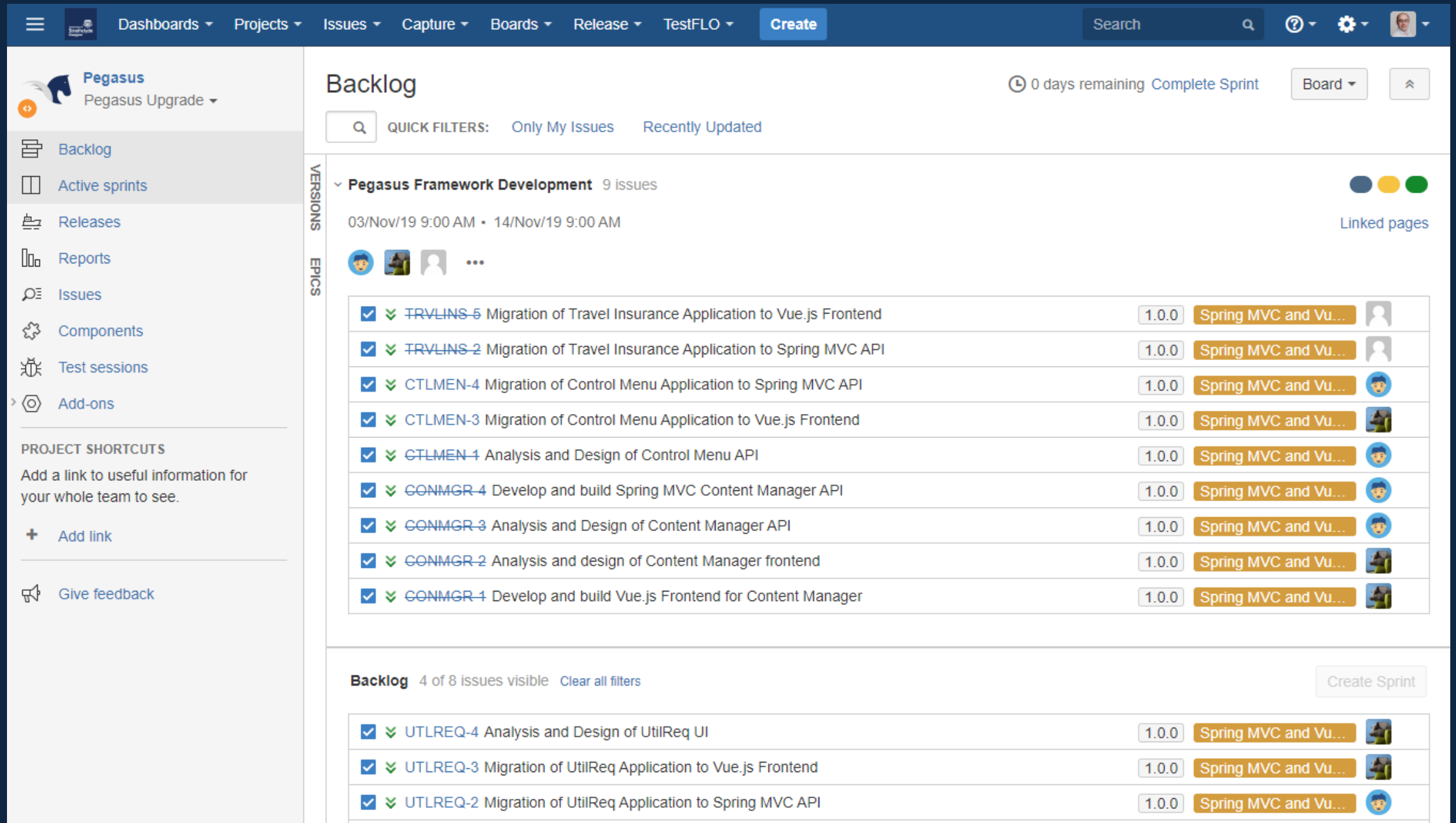
Development Build Tools

API - Devops


JIRA
Used to raise tickets on tasks required and tags version
Bitbucket
Used for source code control of all apps and framework
Pegasus
spring
Java framework
eclipse
Confluence
Used to document requirements
Jenkins
Used for continuous integration
POSTMAN
Used to test API's
Maven
For dependency management
sonarqube
Used for code quality control
Maven
Used to build the WAR files
JFrog Artifactory
All binary files are stored in Artifactory
sonarqube
Used to check code quality
Peg - DEV
Peg - TEST
Peg - EU
Peg - VT
Peg-LIVE

MANAGING THE MIGRATION

Small Application and Features


Dashboards
Projects
Issues
Capture
Boards
Release
TestFLO
Create
Search
Pegasus
Pegasus Upgrade
Backlog
Active sprints
Releases
Reports
Issues
Components
Test sessions
Add-ons
PROJECT SHORTCUTS
Add a link to useful information for your whole team to see.
Add link
Give feedback
Backlog
0 days remaining
Complete Sprint
Board
QUICK FILTERS:
Only My Issues
Recently Updated
VERSIONS
EPICS
Pegasus Framework Development 9 issues
03/Nov/19 9:00 AM • 14/Nov/19 9:00 AM
Linked pages
TRVLINS-5 Migration of Travel Insurance Application to Vue.js Frontend 1.0.0 Spring MVC and Vu...
TRVLINS-2 Migration of Travel Insurance Application to Spring MVC API 1.0.0 Spring MVC and Vu...
CTLMEN-4 Migration of Control Menu Application to Spring MVC API 1.0.0 Spring MVC and Vu...
CTLMEN-3 Migration of Control Menu Application to Vue.js Frontend 1.0.0 Spring MVC and Vu...
CTLMEN-1 Analysis and Design of Control Menu API 1.0.0 Spring MVC and Vu...
CONMGR-4 Develop and build Spring MVC Content Manager API 1.0.0 Spring MVC and Vu...
CONMGR-3 Analysis and Design of Content Manager API 1.0.0 Spring MVC and Vu...
CONMGR-2 Analysis and design of Content Manager frontend 1.0.0 Spring MVC and Vu...
CONMGR-1 Develop and build Vue.js Frontend for Content Manager 1.0.0 Spring MVC and Vu...
Backlog 4 of 8 issues visible
Clear all filters
Create Sprint
UTLREQ-4 Analysis and Design of UtilReq UI 1.0.0 Spring MVC and Vu...
UTLREQ-3 Migration of UtilReq Application to Vue.js Frontend 1.0.0 Spring MVC and Vu...
UTLREQ-2 Migration of UtilReq Application to Spring MVC API 1.0.0 Spring MVC and Vu...

Pegasus Framework Development

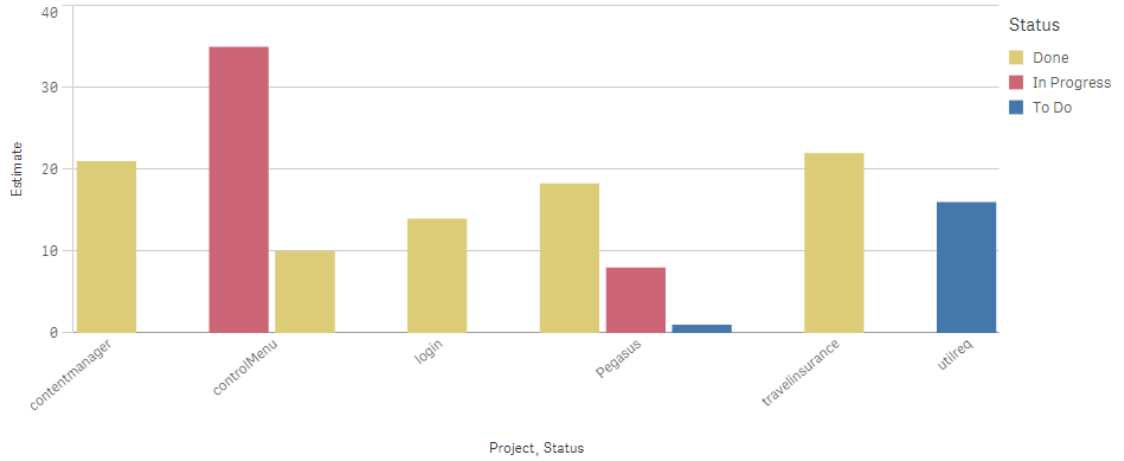
4 days remaining Complete Sprint | Board

QUICK FILTERS: Only My Issues | Recently Updated

To Do	In Progress	Done
	CTLMEN-4 Migration of Control Menu Application to Spring MVC API Spring MVC and Vue.JS Upgrade	~~TRVLINS-5~~ Migration of Travel Insurance Application to Vue.js Frontend Spring MVC and Vue.JS Upgrade
	CTLMEN-3 Migration of Control Menu Application to Vue.js Frontend Spring MVC and Vue.JS Upgrade	~~TRVLINS-2~~ Migration of Travel Insurance Application to Spring MVC API Spring MVC and Vue.JS Upgrade
		~~CTLMEN-1~~ Analysis and Design of Control Menu API Spring MVC and Vue.JS Upgrade
		~~CONMGR-4~~ Develop and build Spring MVC Content Manager API Spring MVC and Vue.JS Upgrade
		~~CONMGR-3~~ Analysis and Design of Content

JIRA Upgrade Project

Estimates per Software Component



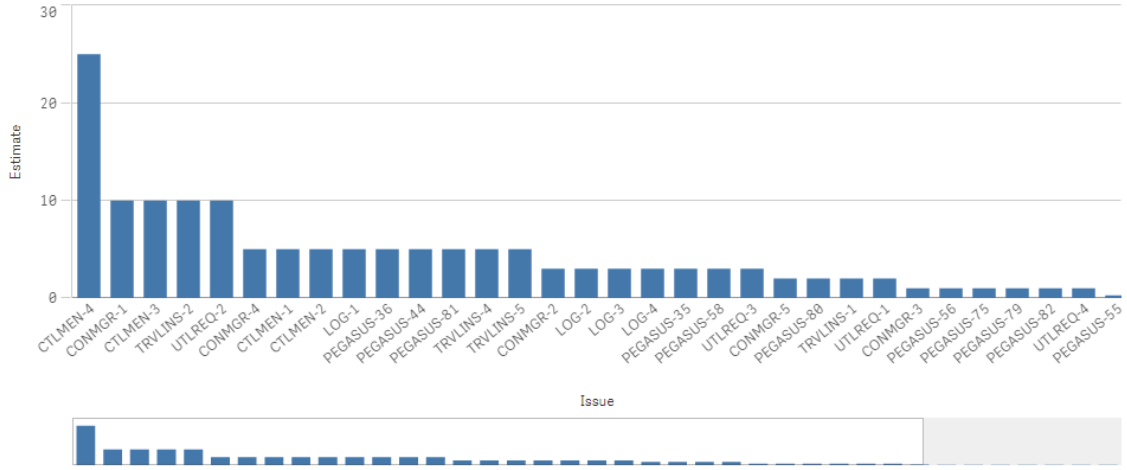
Estimate of Workload

Total Project Estimate (Days)

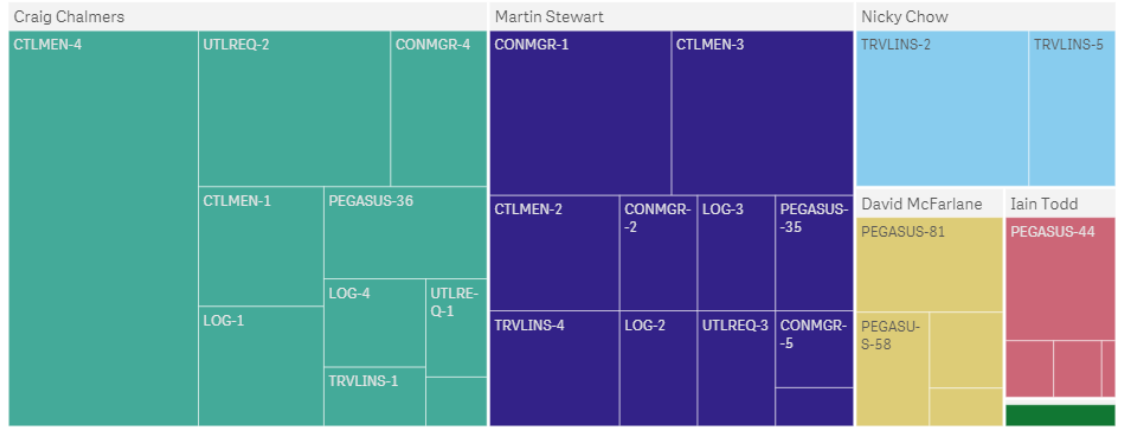
Estimate

145.3 72.29 TimeSpent

Estimates per Work Task



'Estimate' broken down by 'Issue' and 'Username' *



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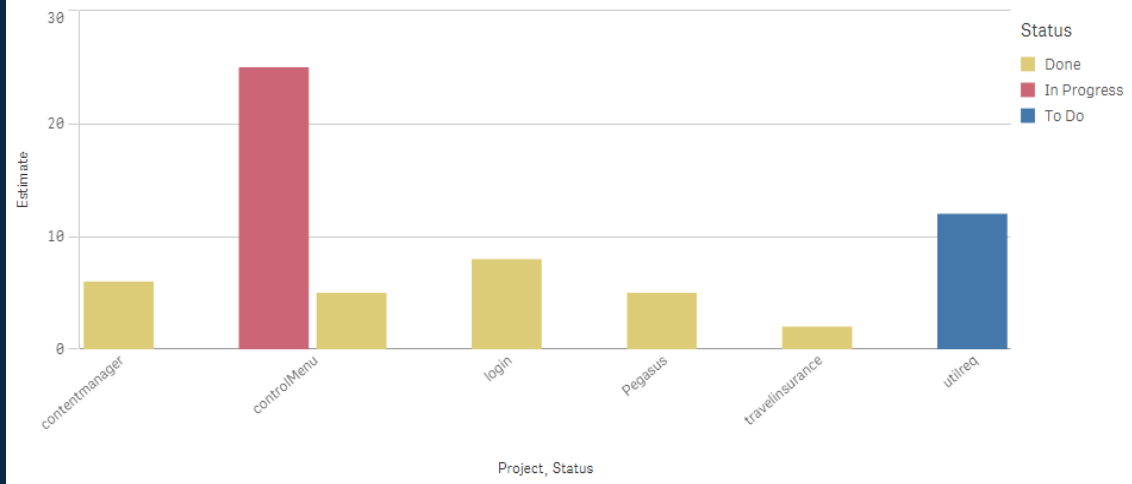
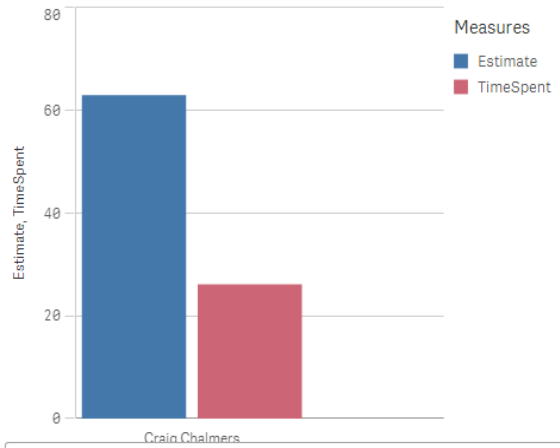
JIRA Upgrade Project

Estimates per Software Component



Estimate of Workload

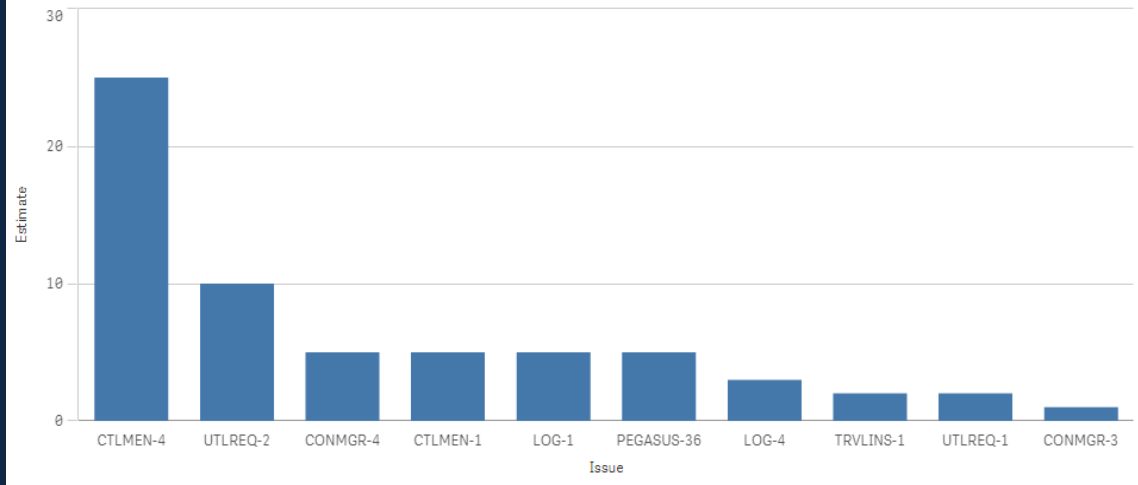


Total Project Estimate (Days)

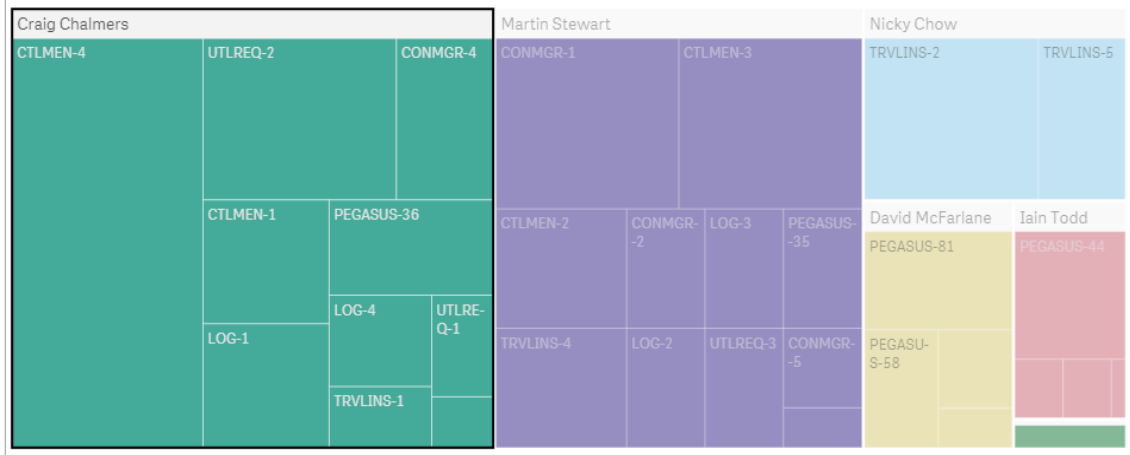
Estimate

63 26.14 TimeSpent

Estimates per Work Task



'Estimate' broken down by 'Issue' and 'Username' *



The data set contains negative or zero values that cannot be shown in this chart.

START

QUESTIONS

University of
Strathclyde
Glasgow