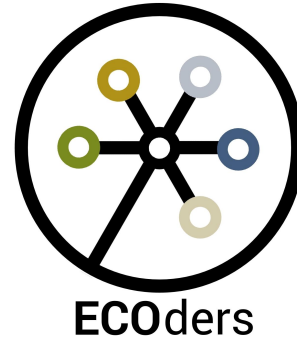


CPCESU Project Management System Design Review 3



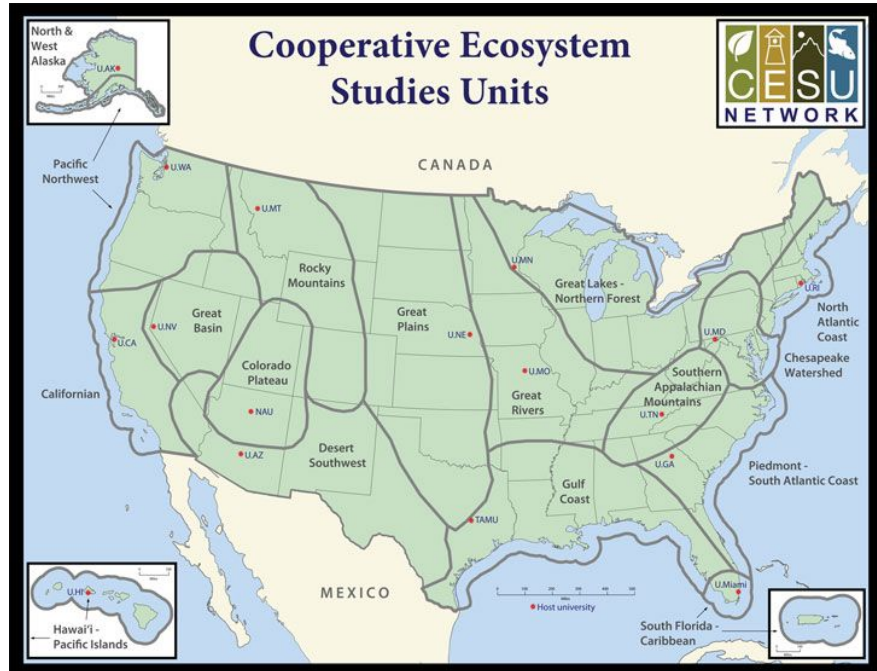
+



Joseph Remy [Team Lead], Colton Nunley, Jasque Saydyk

Faculty Mentor: Ana Paula Chaves Steinmacher

Colorado Plateau Cooperative Ecosystem Studies Unit



- CPCEsu is a part of a national consortium for resource stewardship
 - Dozens of projects
 - Hundreds of modifications
 - Millions of dollars

Project Workflow

Proposal

Federal agency starts inquiry to non-government contractor

Acceptance

Both parties sign and work begins

Termination

Parties end project.
Final report is created

Drafting

Proposal is passed back and forth

Tracking

CPCESU tracks project including modifications

Reporting

Project archived and used for statistics and reporting



Problems

Proposal

Allow organizations to
Submit proposals

Acceptance

Notify work has
started

Termination

Archive projects



Drafting

Validate information
on the contract



Tracking

Track and Modify
projects

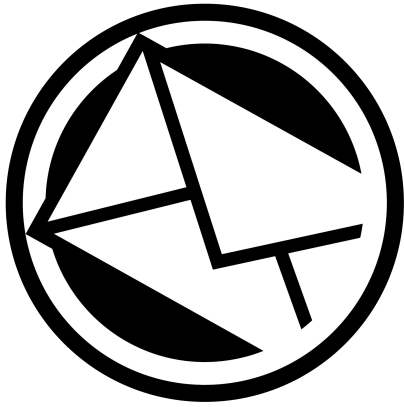


Reporting

Distribute information
to management and
public

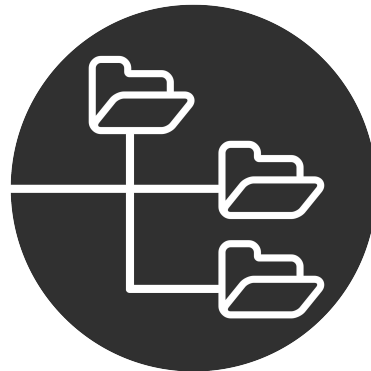


Current Technology



Problems:

- Disconnected
- Entry Lag Time
- Data Fragmentation
- Data Loss & Redundancy



Solution - "Summit"

Web Application

Distribute to the public

View project proposals

Track & Modify projects

Archive project info for future use



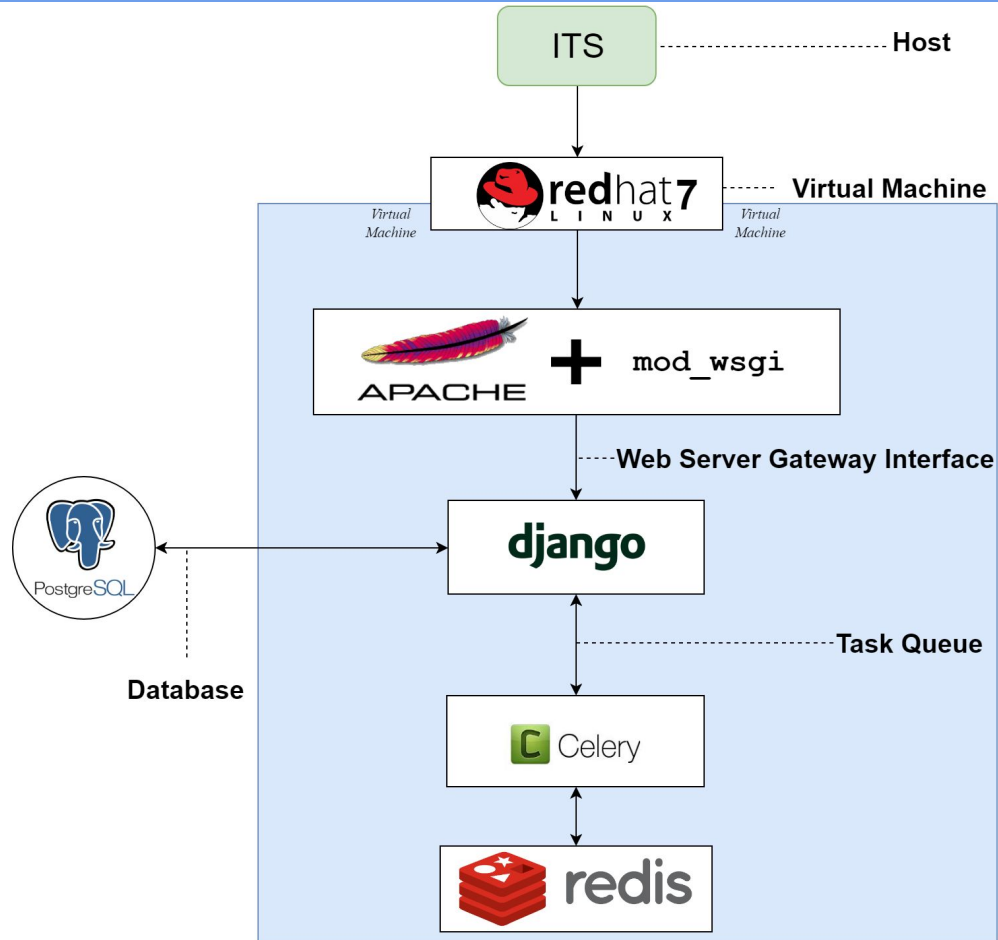
Public



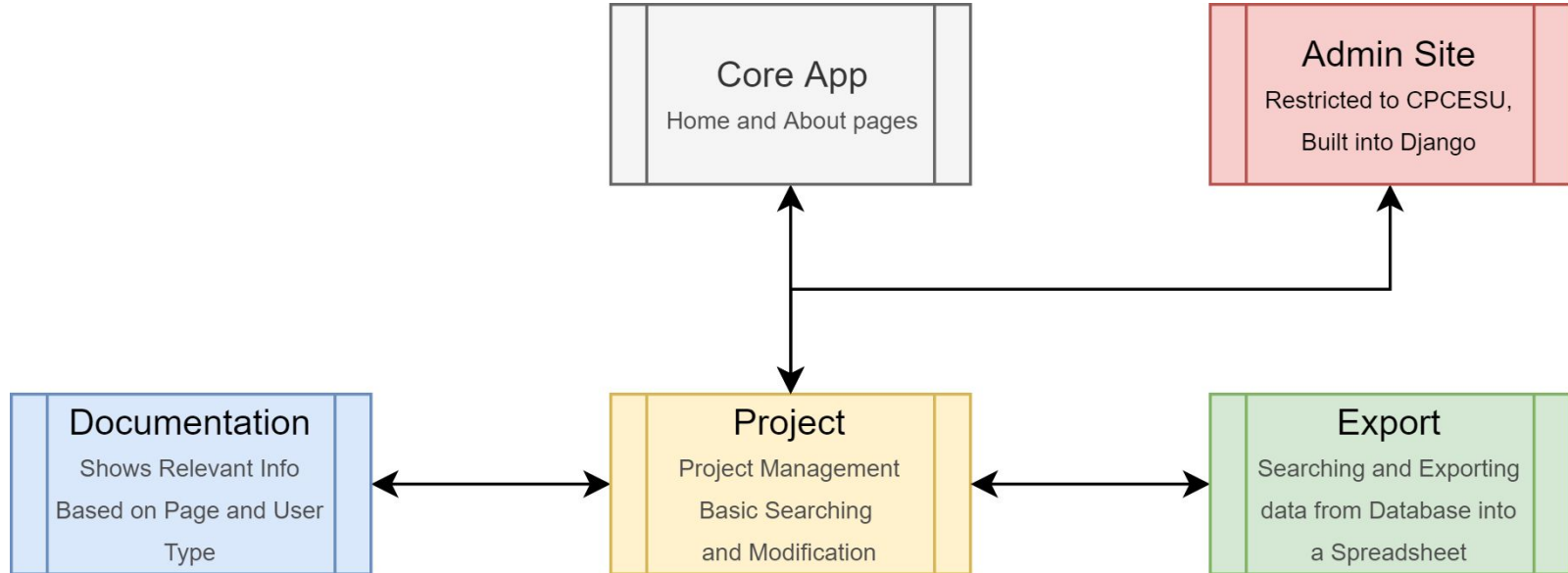
Organizations



Solution System Diagram

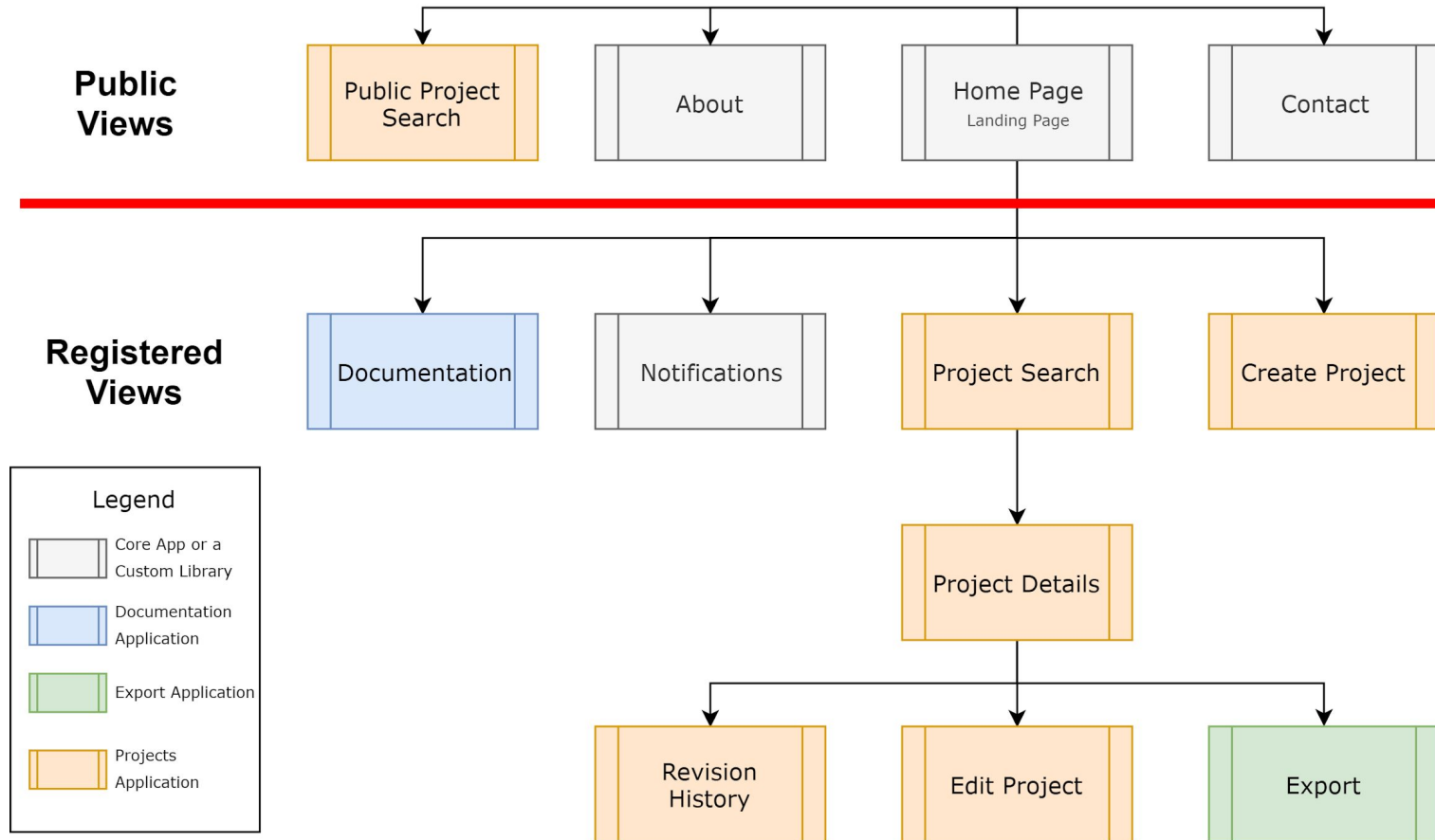


Modular App Design

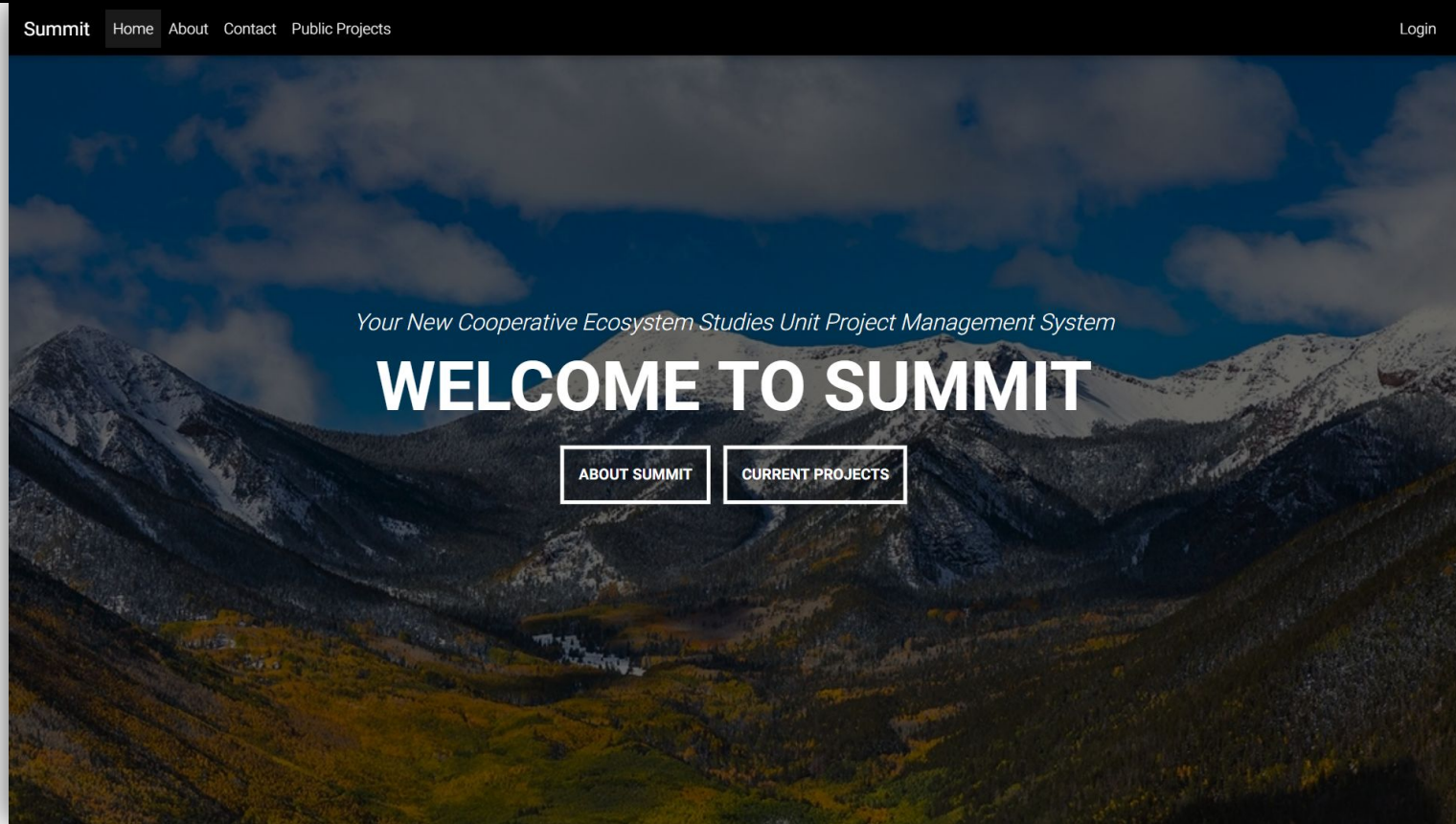


Each app is connected via Python imports and URL configurations

Simplified Sitemap for Authenticated Users



Current Status - Homepage



Centralized functionality and **data accessibility** by different user groups

Current Status - Project List and Search

Summit Home About Contact My Dashboard Projects and Locations Public Projects Groups and Users Admin Site Notifications Welcome, jlr545

Projects List

Project List of all projects you are currently assigned to (drafting, executed, and closed)

Show 10 entries Search:

P-Num	Status	Title	Federal Agency	Partner	Type	Discipline	Fiscal Year	Budget	Edit/View Details
F18-ghi-456-jkl	EXECUTED	Project for Using Plant Functional Traits to Predict Native and Non-native Species Success According to Soil Type in Restoration	National Forest Service	Northern Arizona University	RESEARCH	INTERDISCIPLINARY	2018	50000.00	EDIT DETAILS
F18-abc-123-def	CLOSED	Monitoring and Data Development for Special Status Plants and Pollinators in Mesa Verde National Park, Montezuma County, Colorado-2018	National Park Service	Colorado State University	EDUCATION	NATURAL	2018	20000.00	EDIT DETAILS
	DRAFT	Project about Measuring Colorado River Water Quality for Quarter 3, 2019 at Grand Canyon	National Park Service	Northern Arizona University	RESEARCH	NATURAL	2019	10000.00	EDIT DETAILS

Showing 1 to 3 of 3 entries Previous 1 Next

Tracking and searching for projects for different user groups

Current Status - Project Details

The screenshot shows a web application interface for project details. At the top, there is a navigation bar with the following items: Summit, Home, About, Contact, My Dashboard, Projects and Locations (dropdown), Public Projects, Groups and Users (dropdown), Admin Site, Notifications (dropdown), and Welcome, jlr545 (dropdown). Below the navigation bar is a header image of a mountain range with a 'D:DT' logo in the top right corner. The main content area features a large title box with the text: 'Project for Using Plant Functional Traits to Predict Native and Non-native Species Success According to Soil Type in Restoration'. Below the title is the 'P-Number: F18-ghi-456-jkl'. A second box contains project metadata: 'Partner: Northern Arizona University', 'Federal Agency: National Forest Service', 'Budget: 50000.00', 'Student Support: BOTH', and 'File(s):'. A 'Description:' section follows with a paragraph of placeholder text. At the bottom, there are four buttons: 'EDIT PROJECT' (disabled), 'ADD MODIFICATIONS', 'EXPORT TO CSV', and 'VIEW/REVERT PROJECT HISTORY'.

Summit Home About Contact My Dashboard Projects and Locations Public Projects Groups and Users Admin Site Notifications Welcome, jlr545

Project for Using Plant Functional Traits to Predict Native and Non-native Species Success According to Soil Type in Restoration

P-Number: F18-ghi-456-jkl

Partner: Northern Arizona University
Federal Agency: National Forest Service
Budget: 50000.00
Student Support: BOTH
File(s):

Description:
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus semper mauris nisi. Maecenas vulputate hendrerit fringilla. Aliquam porttitor quis libero eget luctus. Ut sodales mollis est at finibus. In ante mauris, rhoncus sit amet enim eu, porttitor facilisis turpis. Integer aliquam rhoncus vestibulum. Pellentesque eu felis a lacus laoreet aliquam sit amet sed libero. Integer mollis, risus ut egestas iaculis, neque lectus dapibus risus, non dapibus elit massa eu est. Sed tincidunt a orci et rutrum. Nam mollis, nisl vitae fringilla facilisis, velit lorem placerat ex, nec bibendum turpis ante quis quam. Aliquam ornare nisi ac eros aliquam ullamcorper. Proin viverra eget massa id finibus. In turpis dolor, rutrum nec velit nec, feugiat feugiat elit. Morbi at egestas felis. Praesent at felis nulla. Integer luctus ipsum non quam dapibus, et hendrerit nunc faucibus.

EDIT PROJECT ADD MODIFICATIONS EXPORT TO CSV VIEW/REVERT PROJECT HISTORY

Easier access to project data to decrease overhead and increase efficiency

Current Status - Project Modification

Summit Home About Contact My Dashboard Projects and Locations Public Projects Groups and Users Admin Site Notifications Welcome, jlr545

Project for Using Plant Functional Traits to Predict Native and Non-native Species Success According to Soil Type in Restoration
P-Number: F18-ghi-456-jkl

Project Modifications

Create Modifications

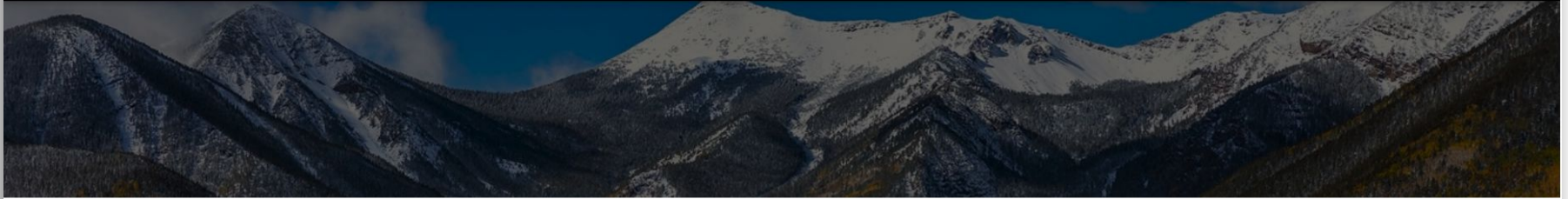
Modification #:

Modification Type:

Modification Description

Projects can be **modified** in real-time using **one consolidated application**

Current Status - Autofill



Autofill

Please fill out all fields.

File: PRISM.pdf

SUBMIT

ABOUT CPCESU

The CPCESU is a cooperative network, transcending political and institutional boundaries, which creates innovative opportunities for research, education, and technical assistance in support of the management and stewardship by partner agencies of the Colorado Plateau's natural, cultural, and social resources.

ABOUT SUMMIT

The CPCESU Project Management System, nicknamed "Summit", was created from a senior capstone project Fall 2018 to Spring 2019. To learn more about what this means, please visit [the ECOrder's Capstone website](#).

Submitting projects automatically for our client and federal agencies

Current Status - Autofill

Create Project

Basic Project Info

Project title:

Advance Management of M

Status:

Drafting ▾

Partner:

▬ ▾

Federal agency:

▬ ▾

Student support:

Undergraduate ▾

Youth/Veteran involvement:

Graduate and Undergraduate ▾

Co-sponsors:

Additional Details

Short summary:

Initiate FY 18 CESU Task Ag

Description/Abstract:

Sort through collections and tag historical artifacts

Budget:

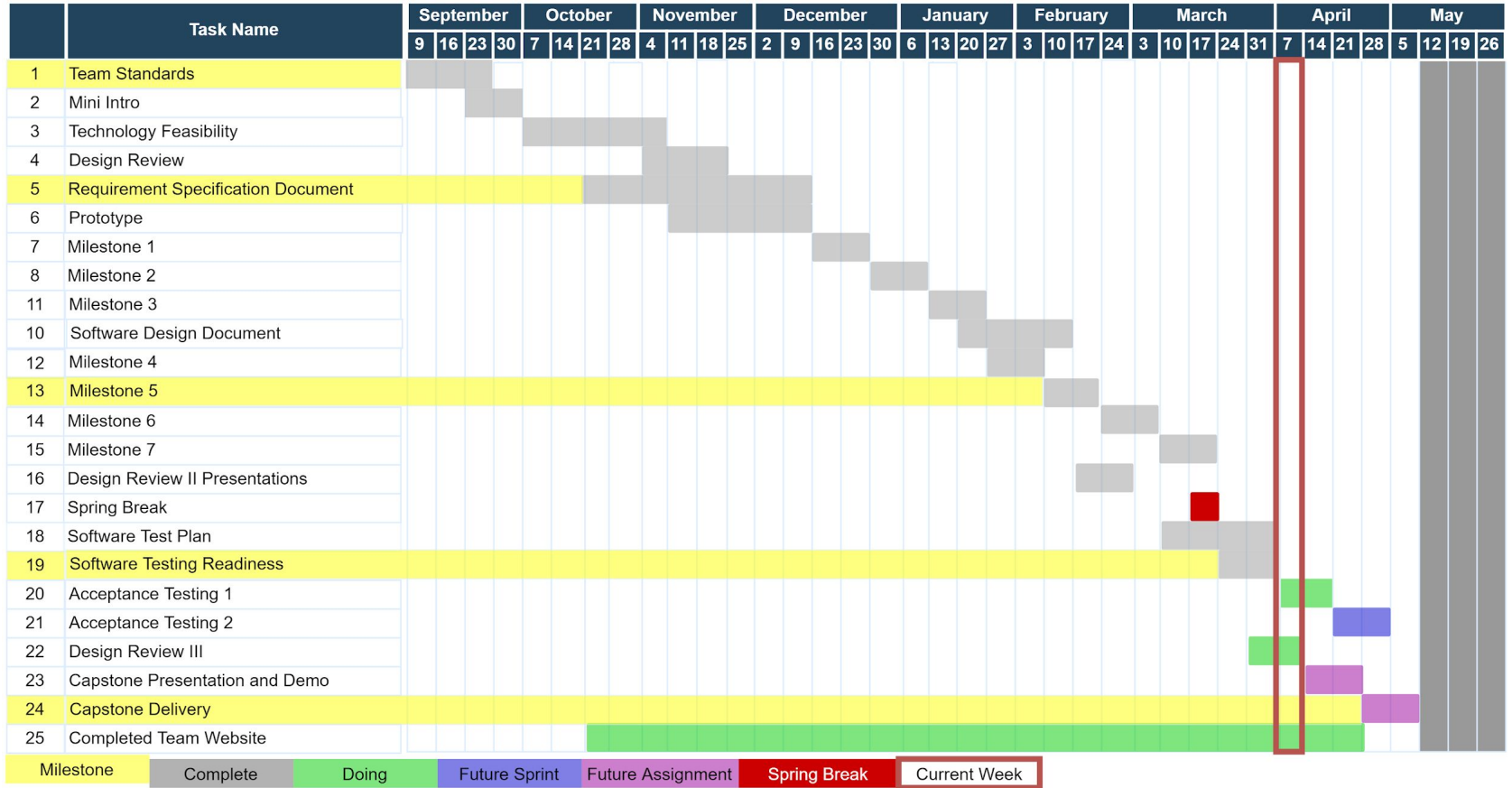
66495

Validating user data to prevent fragmentation and assure data integrity

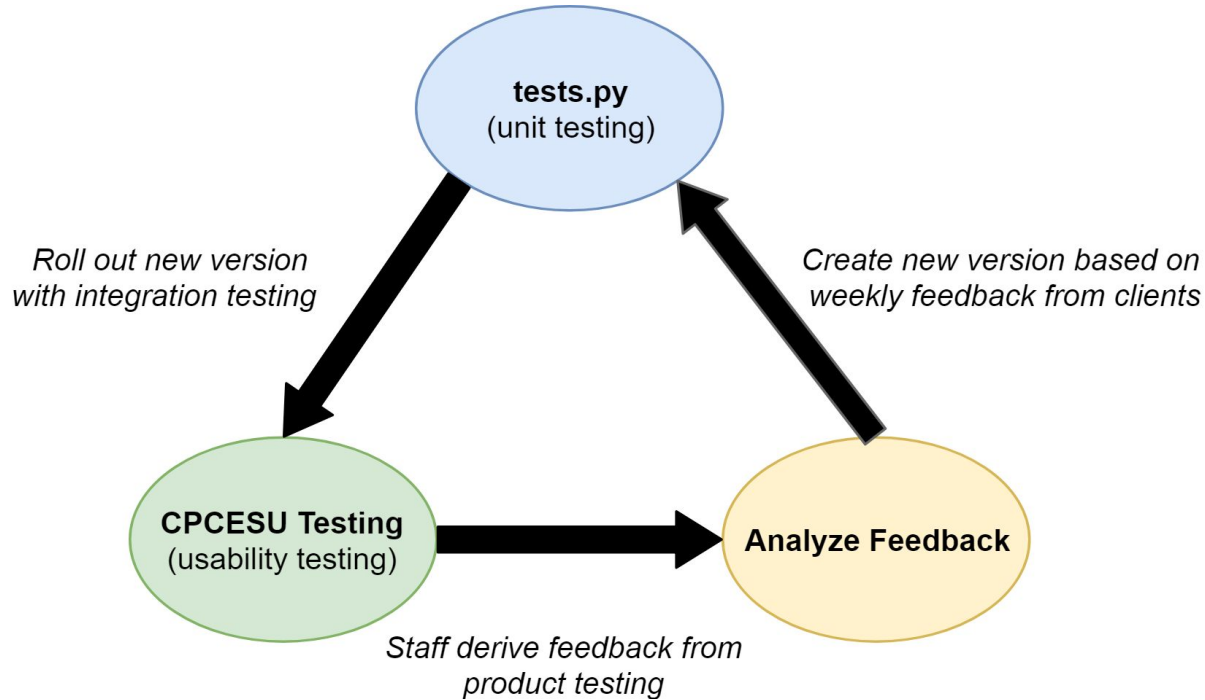
Challenges and Resolutions

- **Expectation Gap** | 20% | *High*
 - Overcome with frequent meetings and communication and user testing
- **Optical Character Recognition (OCR)** | 5% | *Low*
 - Asynchronous processing using Celery
- **Deployment Issues** | 5% | *Low*
 - Early and constant communication with ITS

Year at a Glance



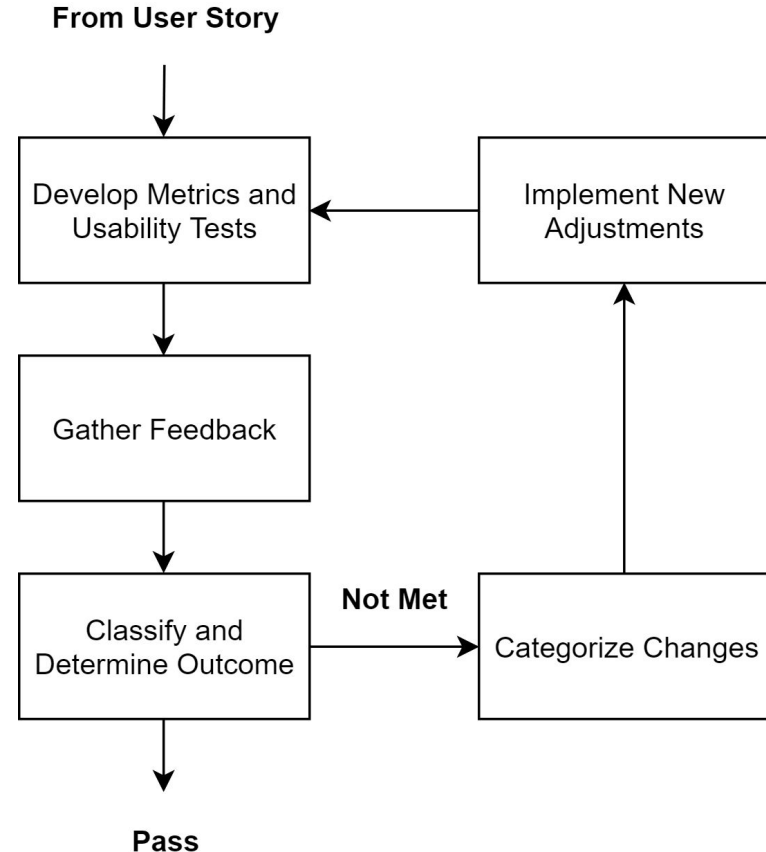
Testing Plan Overview



Usability Test Flow

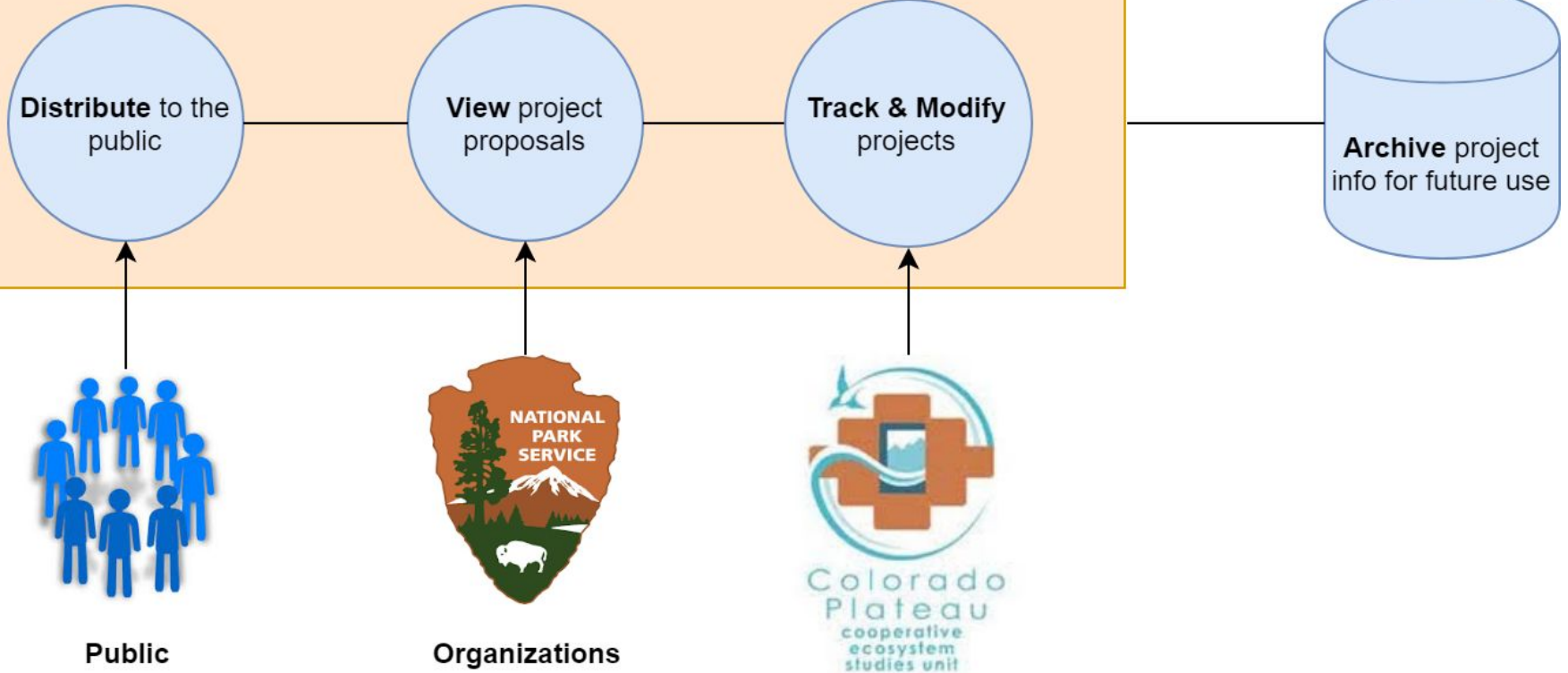
Example Metrics:

- Timing how long it takes to create a project
- Counting clicks to create project



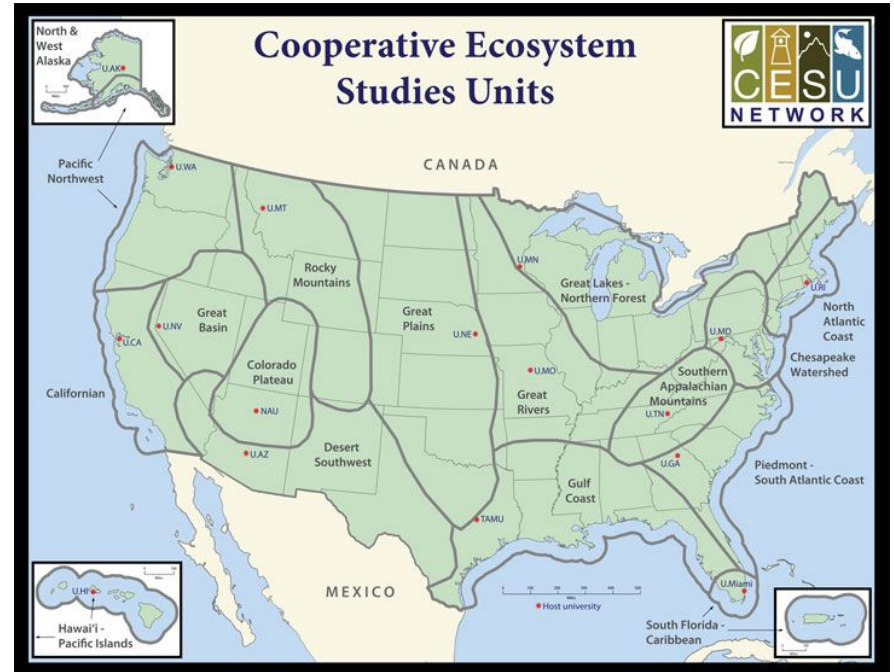
Conclusion

Web Application



Broader Impacts

- Better reporting to NAU and other organizations
- Can become the national network's system
- Aiding conservation projects and the environment





CPCESU Project Management System



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UI Designer Lead*

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*Architect
Customer Communications
QA Manager*

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<http://bit.ly/ECODers>

Jasque Saydyk

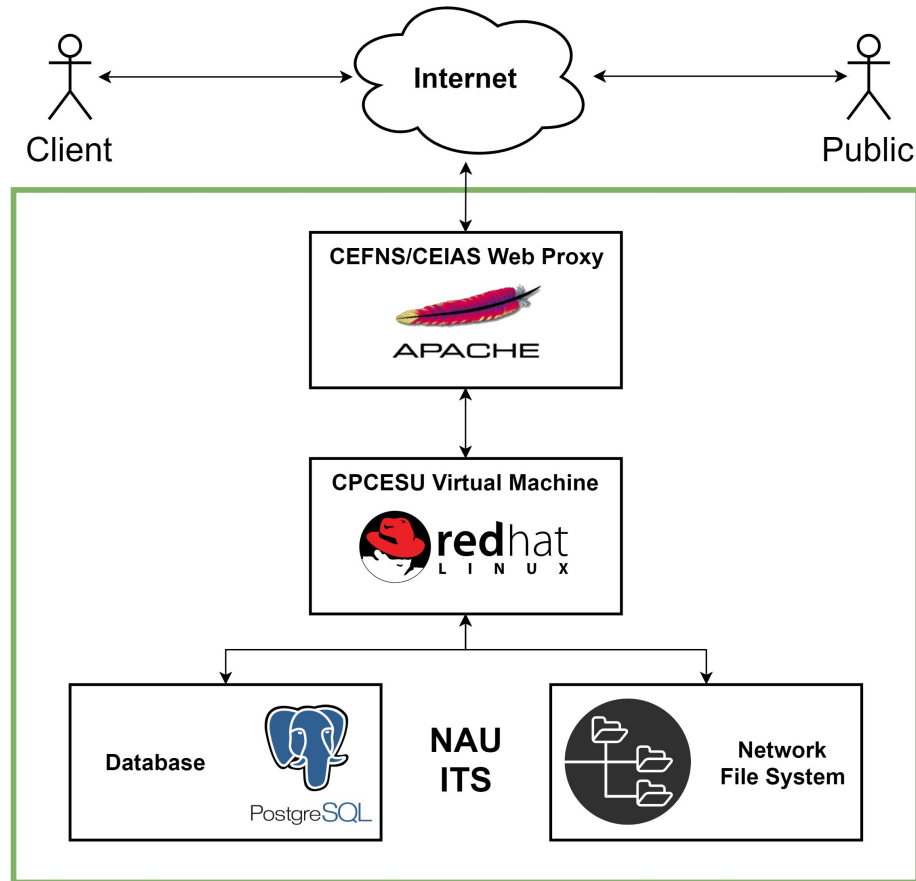
*Business Analyst
Recorder
Release Manager*

jrs496@nau.edu

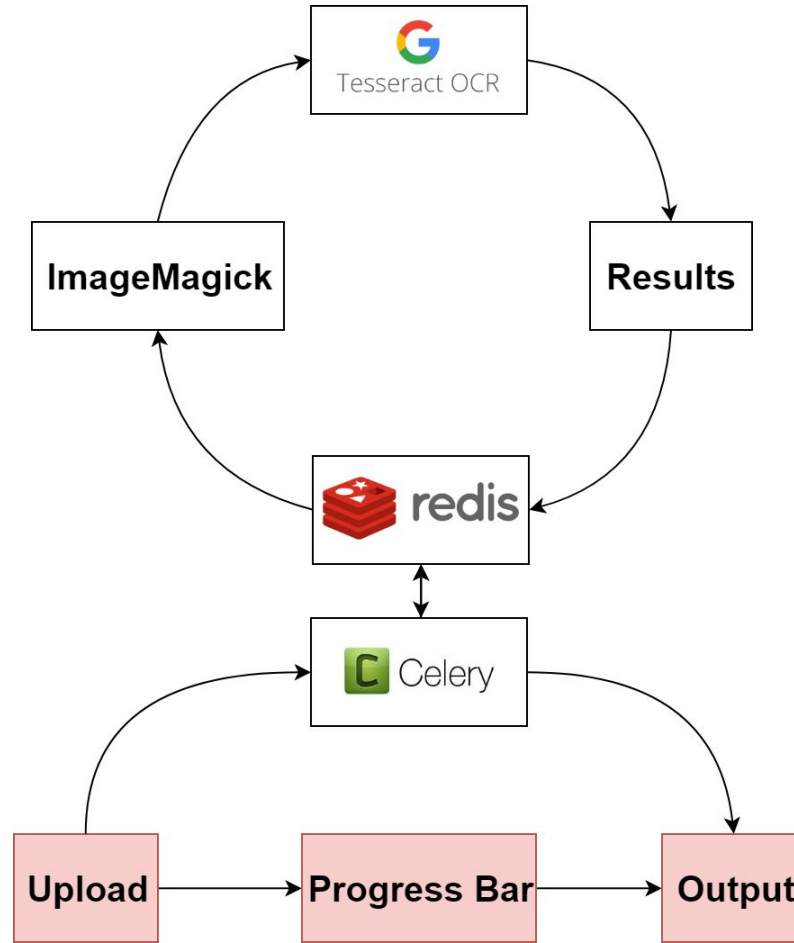
Key Requirements

- Track and modify projects
- Notified of project deadlines
- Ensure correct data
- Autofill from a document
- Export data from searches
- Public searching through projects

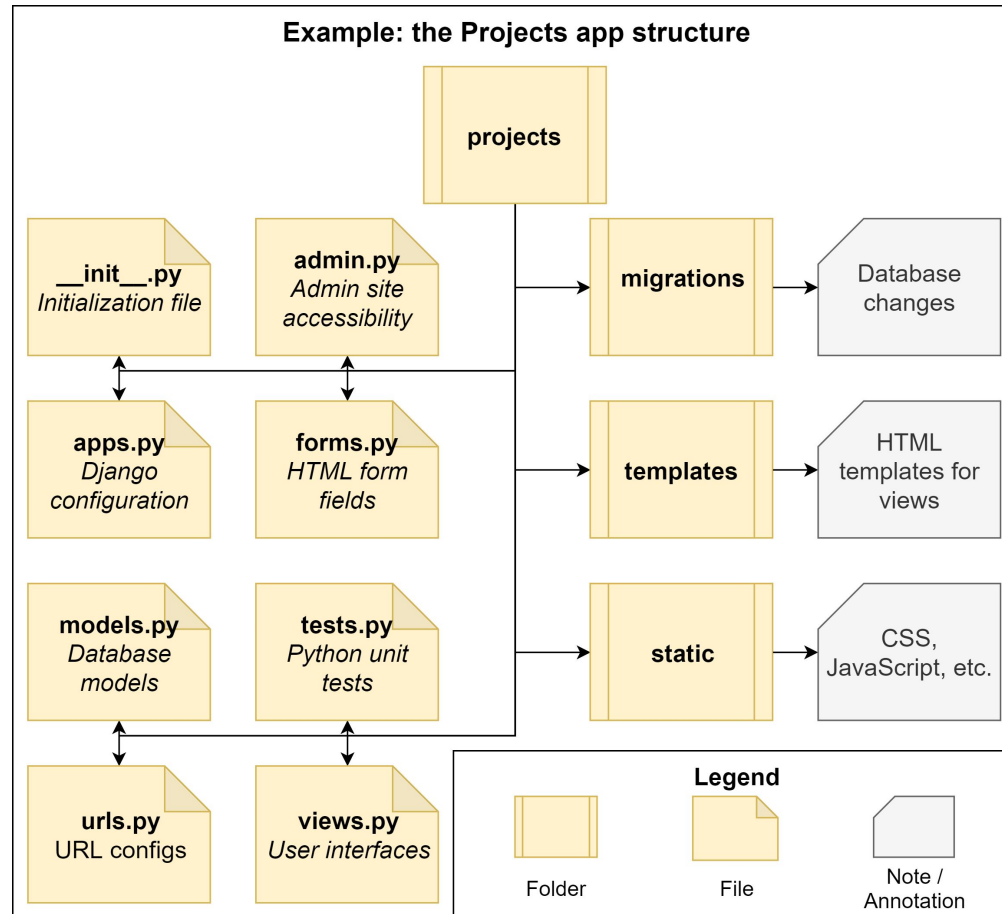
Solution Server Deployment Diagram



Autofill System Diagram

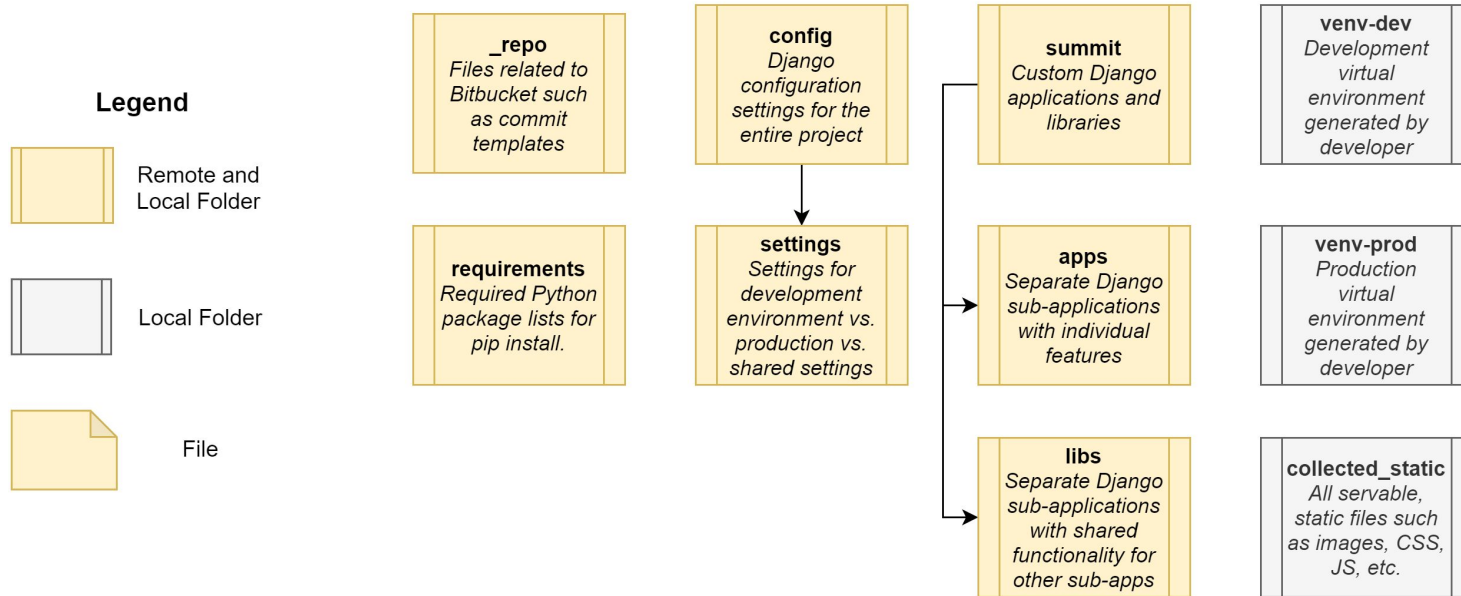


Sub-application Structure



File System Tree

cpcesu-pm “Summit” General File Structure



A Few Core Sub-app. Files

Ex: the projects app.

<u>submit/apps/projects folder</u>		
models.py	urls.py	views.py
Database Models	Route Controller	Generating Views
Project Modification Revision	Index "/projects" Add Project "/projects/add" Project Details: "/projects/detail/<id>" Edit Project: "/projects/edit/<id>"	Index - List View "templates/index.html" Add Project - Create View "templates/project_create.html" Project Details - Detail View "templates/project_list.html" Edit Project - Update View "templates/project_update.html"

Current Status - Responsive Design

Summit Home About Contact My Dashboard Projects and Locations Public Projects Groups and Users Admin Site Notifications Welcome, jr545

Create Project

Basic Project Info

P-Number:

Project title:

Status:

Partner:

Federal agency:

Additional Details

Short Description:

Abstract:

Desktop

Summit

Create Project

Basic Project Info

P-Number:

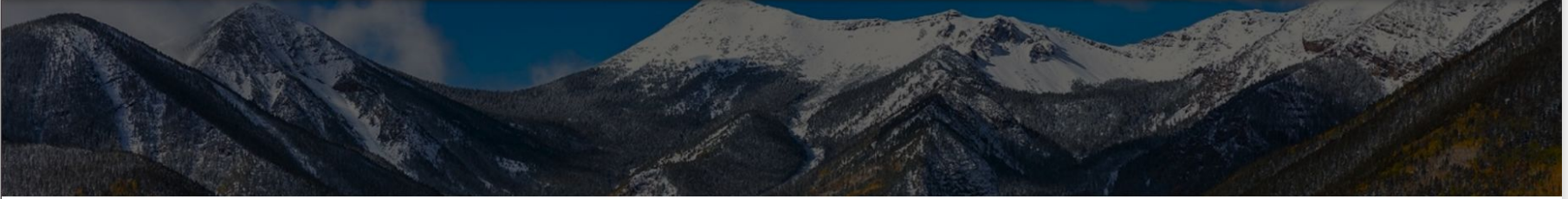
Project title:

Status:

Partner:

Mobile

Current Status - Autofill



Progress

The Task is PROGRESSING!

33%



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