



Fay Jones Lab Request System

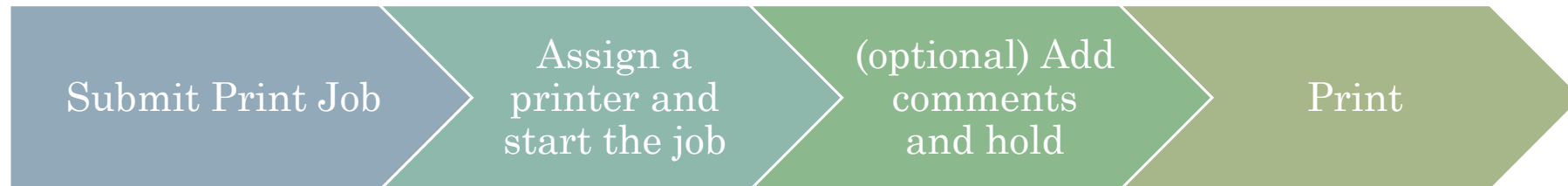
Aaron Faubion, Elliot Mason, Matthew Brooke, Tanner
Paschal, and Zachary Thiher



The Lab Space

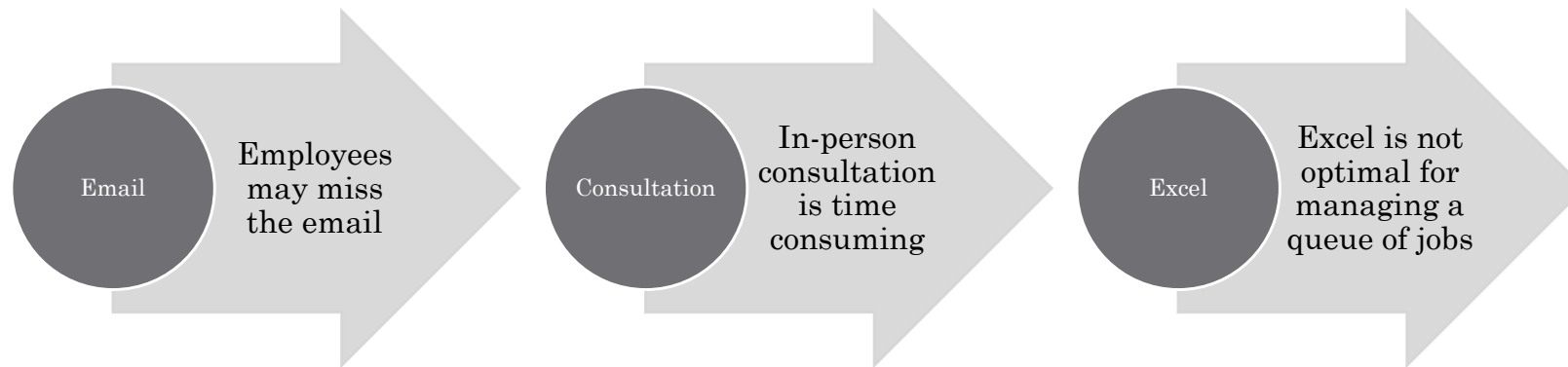
What is FJLRS?

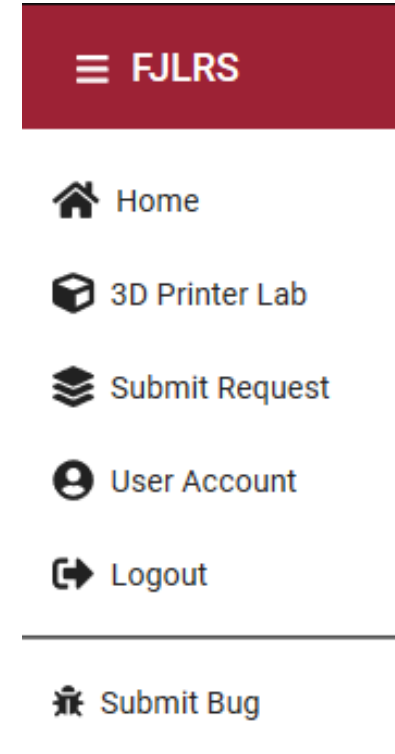
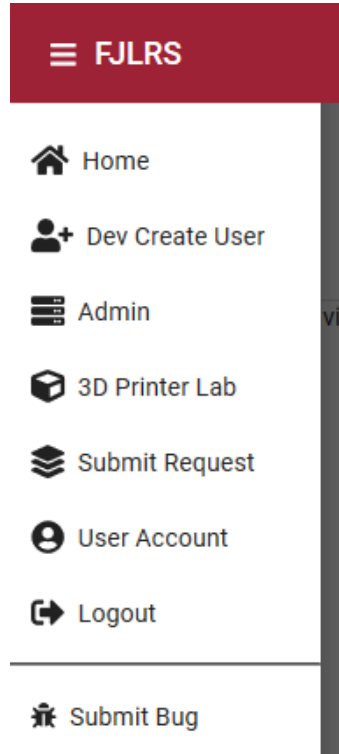
- Online webapp that allows students to submit print jobs to a queue
- Allows staff to have a single point to view the queue, interact with the jobs, and update the status



Why?

- The current system for the print lab is inconvenient.
- Students must email to schedule an in-person consultation in order to print.
- Jobs are manually added to an Excel file to track them.

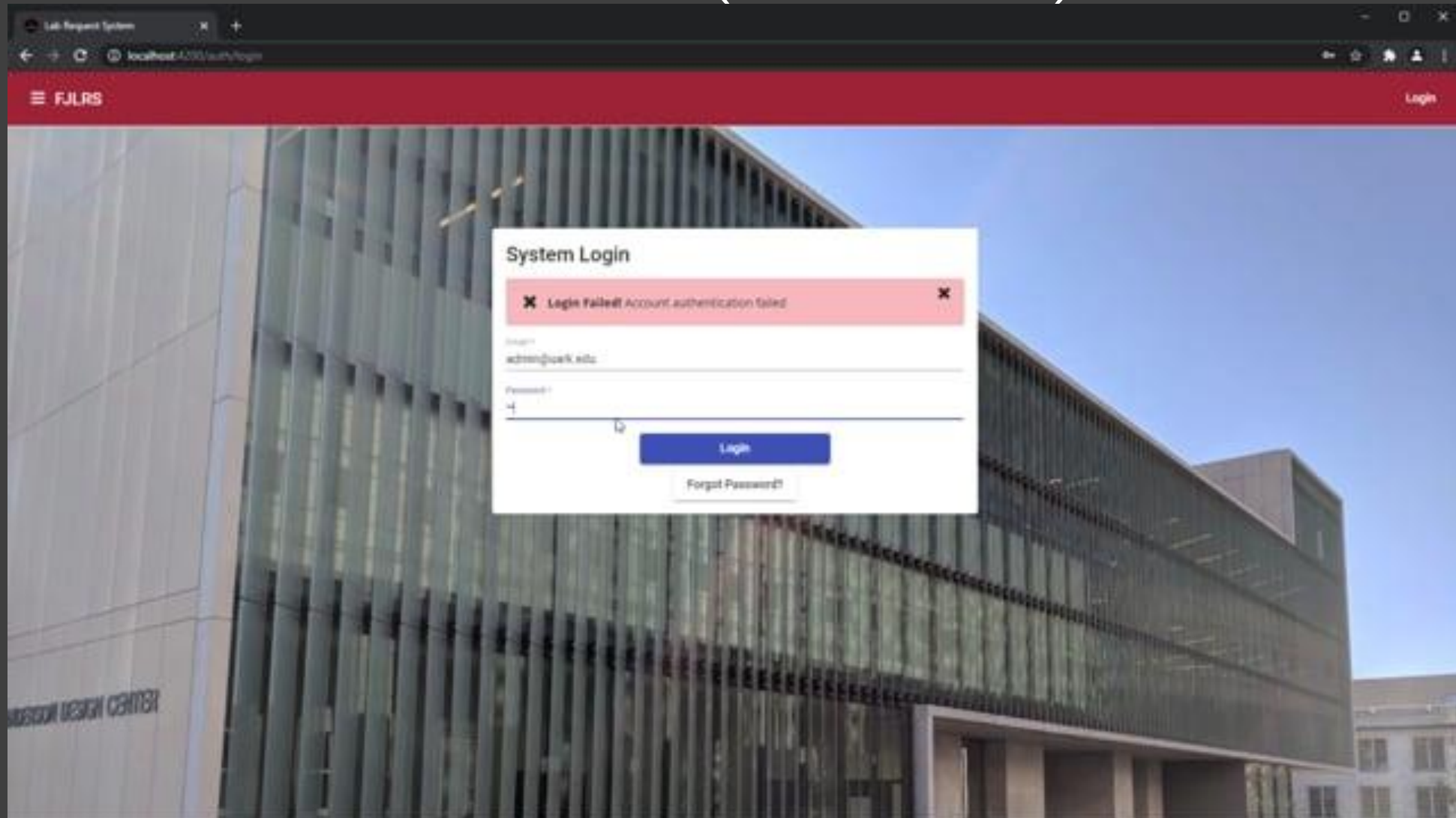




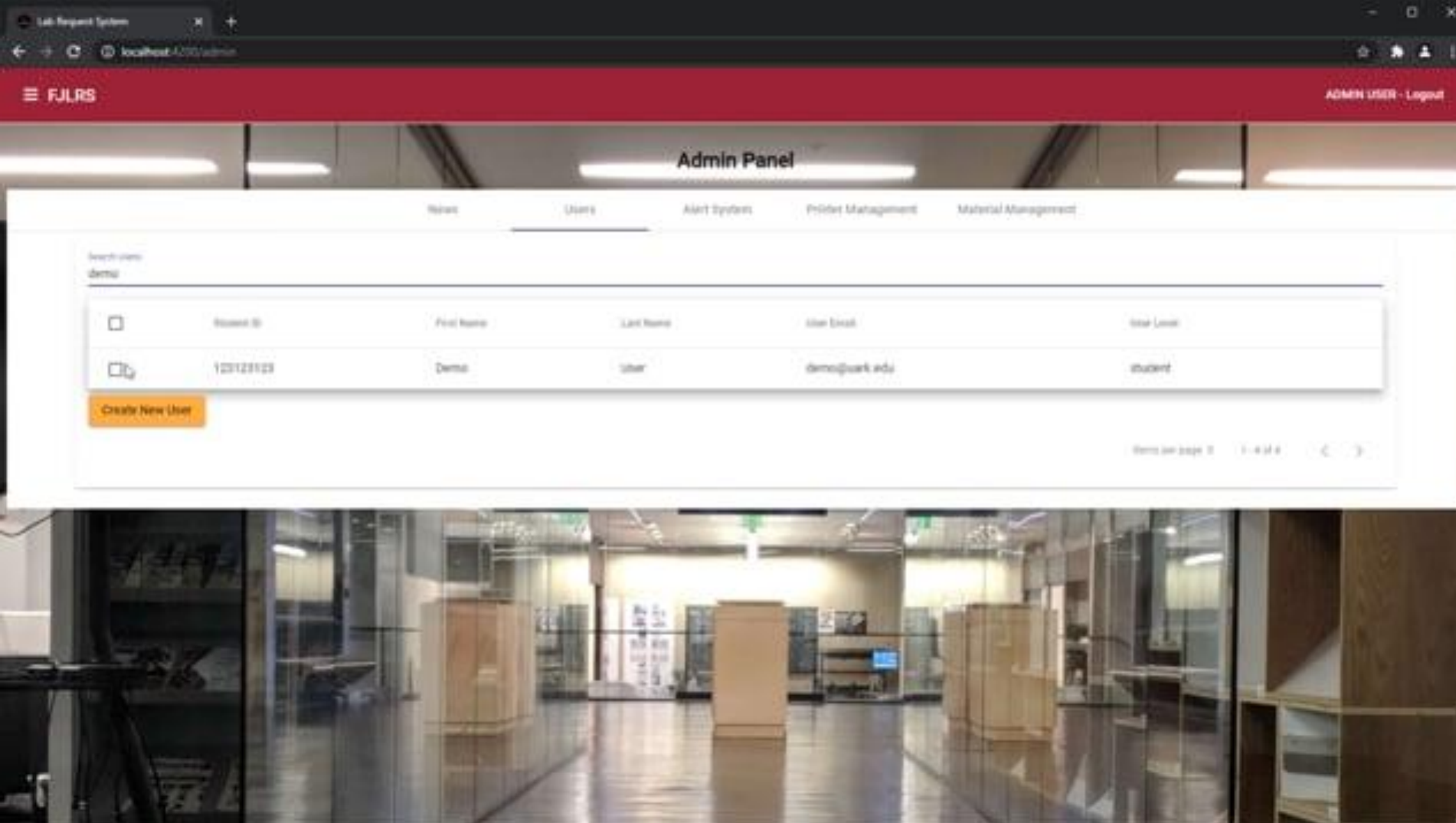
Employee & Student Navigation Views

Admins have exclusive capabilities

User Enrollment (ADMIN)



User Management (ADMIN)



The screenshot displays the Admin Panel of the FJLRS (Lab Request System). The interface includes a navigation menu with options for Home, Users, Alert System, Printer Management, and Material Management. The Users section is active, showing a search bar with the text 'demo' and a table of users. Below the table is a 'Create New User' button and pagination controls.

<input type="checkbox"/>	Student ID	First Name	Last Name	User Email	User Level
<input type="checkbox"/>	123123123	Demo	User	demo@uark.edu	student

Items per page: 1 - 4 of 6

Manage Printers (ADMIN)

The screenshot displays the 'Admin Panel' for the FJLRS system, specifically the 'Printer Management' section. The interface includes a navigation menu with options like 'Home', 'Users', 'Alert System', 'Printer Management', and 'Material Management'. The main content area features a search bar for printers and a table listing existing printers. Below the table is a 'Create New Printer' form with input fields for printer name, type, and ID, and a 'Create New Printer' button.

Admin Panel

Home Users Alert System **Printer Management** Material Management

Search Printers

Printer Name	Printer Type	Printer ID	
Printer 01	Prusa	octoprint	Delete
Printer 02	Prusa	octoprint id	Delete

Items per page: 1 1 - 2 of 2

Create New Printer

Printer Name: Demo Printer 03 Printer Type: Prusa Printer ID: [demo01]

Create New Printer

Manage Materials (ADMIN)

The screenshot shows a web browser window displaying the 'Admin Panel' for 'FJLRS'. The page is titled 'Manage Print Materials' and features a search bar, a table with columns for 'Material Name', 'Material Type', and 'Material Price-Rg', and a 'Create New Material' form with a corresponding button. The background of the page is a blurred image of a modern office hallway.

Lab Request System | Card | Single Material | localhost:4200/admin | ADMIN USER - Logout

Admin Panel

Home | Users | Alert System | Printer Management | **Material Management**

Manage Print Materials

Search Materials

Material Name	Material Type	Material Price-Rg
---------------	---------------	-------------------

Items per page: 0 | 0 of 0

Create New Material

Material Name: _____ Material Type: _____ Material Price-Rg: _____

Create New Material

Submitting a File and Queue Job



Print Queue Overview

3D Print Lab

Current Print Queue

Completed Print Jobs

Table View Settings

Search Print Jobs

Description	Material ID	Created At	Submitted By	Status
URGENT! I didn't get this one printed in time!!!	607caa9fb6dc944cc4ca02f0	2021-04-18T19:21:03.450Z	Student User	Submitted
LAB JOB - For cubby hole project	607caa82b6dc944cc4ca02ee	2021-04-18T19:21:03.450Z	Employee User	Submitted
LAB JOB - Filament organizers	607caa89b6dc944cc4ca02ef	2021-04-18T19:21:03.450Z	Employee User	Submitted
None Provided	607caa82b6dc944cc4ca02ee	2021-04-18T19:21:03.450Z	Demo User	Submitted

Items per page: 5

1 - 4 of 4



Print Queue Detail

≡ FJLRS ADMIN USER - Logout

Job Details

Submitted By: *Student User*
Created At: *04/18/2021 19:21*
Description: *URGENT! I didn't get this one printed in time!!!*
Material: *Light Grey PLA*

[Download File](#)

Current Job Status

Assigned

Assigned Printer

Demo Printer 03

Comments

- **ADMIN USER** *04/18/2021 23:15*
Sorry, but I am unable to expediate your request
- **Student User** *04/18/2021 23:15*
I understand, I was foolish in my ways
- **Student User** *04/18/2021 23:15*
It should still be printed before Friday though right? 😊

comment

Assign Printer

Sets status to 'Assigned'

[Assign Printer](#)

Change Job Status

[Change Status](#)

fjlrddb01.printqueueitems Documents

fjlrddb01.printqueueitems DOCUMENTS 7 TOTAL SIZE 1.5KB AVG. SIZE 219B INDEXES 1 TOTAL SIZE 36.0KB AVG. SIZE 36.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER OPTIONS FIND RESET ...

ADD DATA VIEW Refresh

Displaying documents 1 - 7 of 7 REFRESH

```
printStatus: Completed
__v: 0

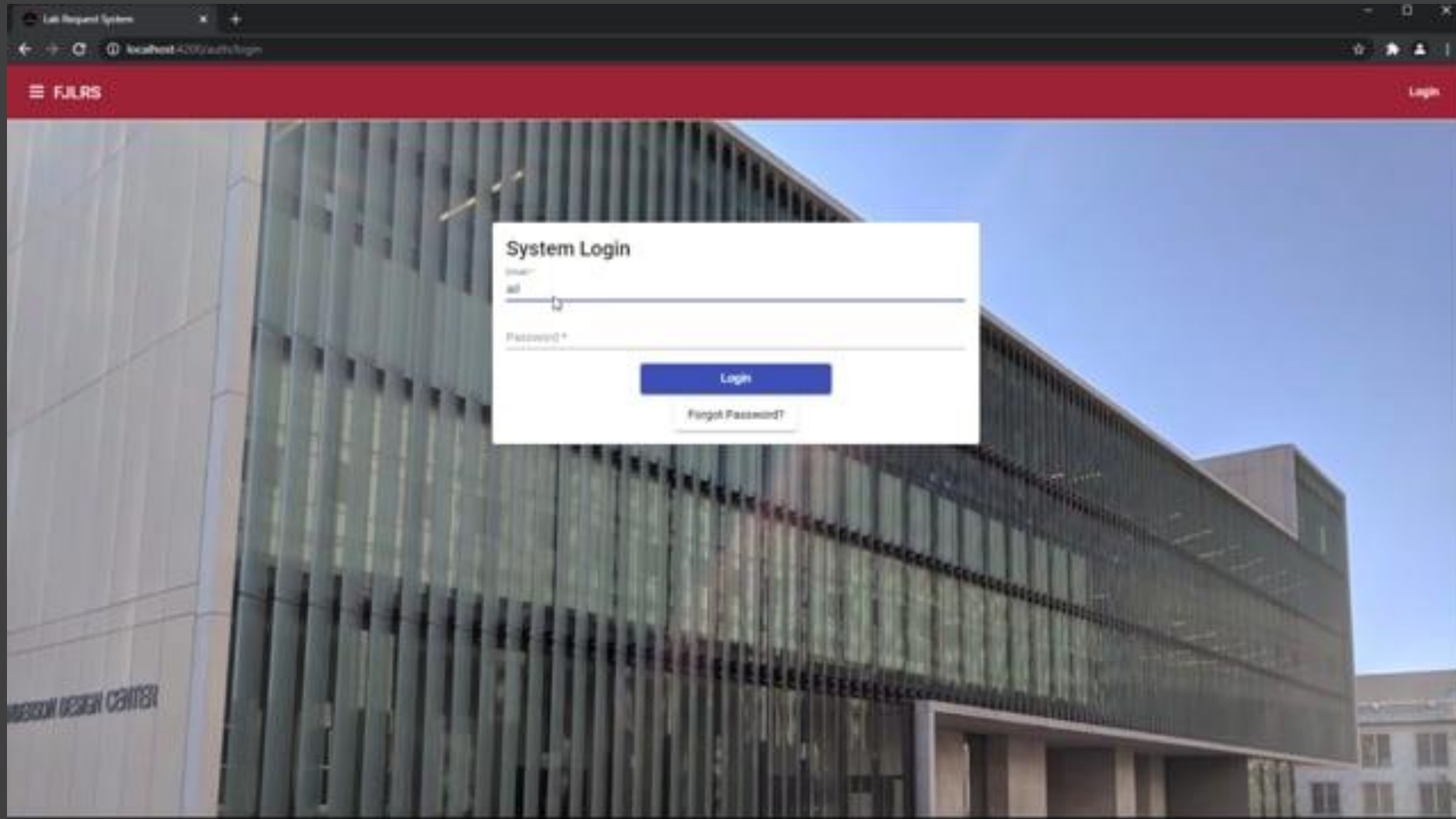
_id: ObjectId("607c8150846bf45094860606")
createdAt: 2021-04-18T18:57:30.795+00:00
description: "None Provided"
fileId: "1618772304203-flush_cutter_holder_rounded_edges.STL"
materialId: ObjectId("60651e8232d47e42f8ca320b")
submittedBy: ObjectId("60024e935b1f944d50e09447")
printStatus: "Completed"
__v: 0

_id: ObjectId("607c847292634508445fbc2")
createdAt: 2021-04-18T19:11:14.428+00:00
description: "None Provided"
fileId: "1618773106115-cutter_holder_square_edges.STL"
materialId: ObjectId("6066341e3dd6e74218c336bd")
submittedBy: ObjectId("60024e935b1f944d50e09447")
printStatus: "Completed"
__v: 0

_id: ObjectId("607cae67b6dc944cc4ca02f1")
createdAt: 2021-04-18T19:21:03.450+00:00
description: "URGENT! I didn't get this one printed in time!!!"
fileId: "1618783847887-Kali_Keychain.stl"
materialId: ObjectId("607caa9fb6dc944cc4ca02f0")
submittedBy: ObjectId("60024e935b1f944d50e09447")
printStatus: "Submitted"
__v: 0
```

Print Queue in Database

Checking the Print Queue



In the Future



Update the student when their job is complete



Adding an STL Viewer to allow for users and admins to view the file in real time



Ability to upload multiple files per job item submission



Generate a dynamic invoice that takes the size and material prices into account

Thank you!