

Smart Inventory

Michael Stallbaumer

Oriana Martin

Michael Chen

VALIDATION PLAN

Task	Validation Criteria	Responsible Party	Status
Functioning cloud database	Have a running firebase realtime database	Michael Stallbaumer	Completed
Cloud database connected to application	Be able to read and write data on the cloud database through an application	Michael Stallbaumer	Completed
Create new functions	Have functions that create new students, admin, requests, forms, and equipment on the database.	Michael Stallbaumer	Completed
Get info functions	Have functions that return all related information for a given user, equipment, form, request, or checkout history	Michael Stallbaumer	Completed
Edit Account functions	Have functions that are able to change the data in the database for pre existing account entries	Michael Stallbaumer	Completed
Remove functions	Have functions that correctly remove a given database entry	Michael Stallbaumer	Completed
Form Verification	Requests can only be made for an equipment if a user has a verified form and forms can be verified by admins	Michael Stallbaumer	Completed
Request Approval/Denial	Requests can be requested or denied, approval requires verifying a students UIN, both delete the request	Michael Stallbaumer	Completed
Checkout History logic	The amount available, checkout amount, and request amounts all update correctly when equipment is requested and checkouts are denied or approved	Michael Stallbaumer	Completed
Check In verification	The checkout history updates correctly along with the available amounts in the equipment entry	Michael Stallbaumer	Completed
Edit checkout history and equipment amounts	when editing values previously saved in the database, the total equipment amounts, checkout amounts, and available equipment amounts all add up correctly and do not become negative	Michael Stallbaumer	In Progress

Task	Validation Criteria	Responsible Party	Status
Preliminary ML Code	Have an initial functioning model with images imported from Tensorflow examples. Model can create a batch and print out a prediction.	Oriana Martin	Completed
Image Dataset	Create a dataset with minimum 1,000 images for each item category. There should be at least 3 categories.	Oriana Martin	Completed
Image Corruption Check	Create a script that can flag any false/corrupted images and image file types.	Oriana Martin	Completed
Image Label Dataset	After meeting the Image Dataset criteria, separate image files into categories and remove unwanted images.	Oriana Martin	Completed
Train Model	Add a concrete training dataset with multiple categories and be able to output a batch sample to qualify that model is reading the images.	Oriana Martin	Completed
Validation Dataset	Create a separate dataset that can accomplish the same criteria as set in the image dataset	Oriana Martin	Completed
Testing Dataset	Create a smaller dataset to test model with after it has been trained, this is a temporary check before final testbench is created	Oriana Martin	Completed
Train Model Version 2	Using the training and validation datasets train the model to achieve 60% accuracy	Oriana Martin	Completed
Accuracy Plots	Write script that can print out plots of accuracy of training and validation dataset in training the model	Oriana Martin	Completed
Model Predictions	Write script that can print out model predictions in small batches to more easily verify the accuracy	Oriana Martin	Completed
Testbench	Create a testbench for the model to be converted and exported to. This should be able to open the camera and take images.	Oriana Martin	In Progress
App Animation	the visuals of what going on in the app so it can tell the users what's going on	Michael Chen	In Progress

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App Design	how the app is gonna look overall	Michael Chen	Completed
App Layout	layout of the app and what is gonna look overall	Michael Chen	Completed
Home Screen	the page where you have the options of what you wanna in the app	Michae Chen	In Progress.
Sign in and Sign Up	the page where you are allowed to sign into your account or make a new account	Michael Chen	Completed
Forgot Password	the page where you can reset your password if you forget	Michael Chen	In Progress
App Visuals	makes the app easy to understand and the aesthetics of the app	Michael Chen	Completed