NDSU | COMPUTER SCIENCE

NDSU Mechanical Engineering Equipment Logger

Team Members: Jack Sherven, Graham Rowland, Jace Weishaar, Gregory Beauclair, Matthew Haugrud

Sponsor: NDSU | MECHANICAL ENGINEERING

Capstone 2023

Problem Statement

- Mechanical Engineering must track usage of rented equipment
- Current app is buggy, unreliable, and android-only
- Must manually download usage logs
- Must manually process logs and produce reports
- Usage tracking is needed for proper billing

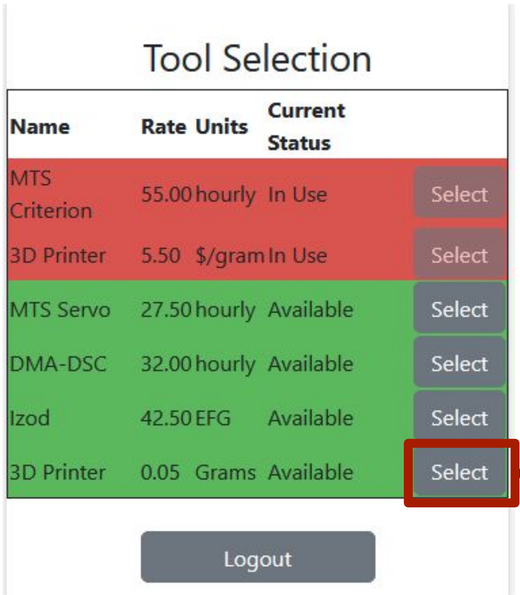
Our Solution

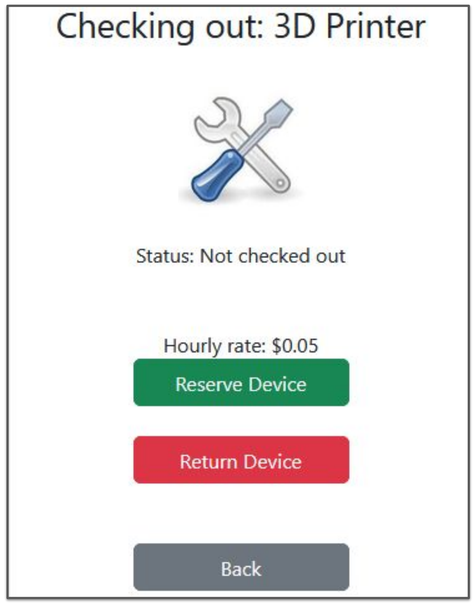
- Design user friendly web application
- Automatically collect usage records
- Automatically process records to generate reports
- Store user and tool information to reduce user input

Key Deliverables

- Universally accessible web application
- Microsoft SQL Database
- Email service
- Documentation for maintenance
- Connection with hardware

User View

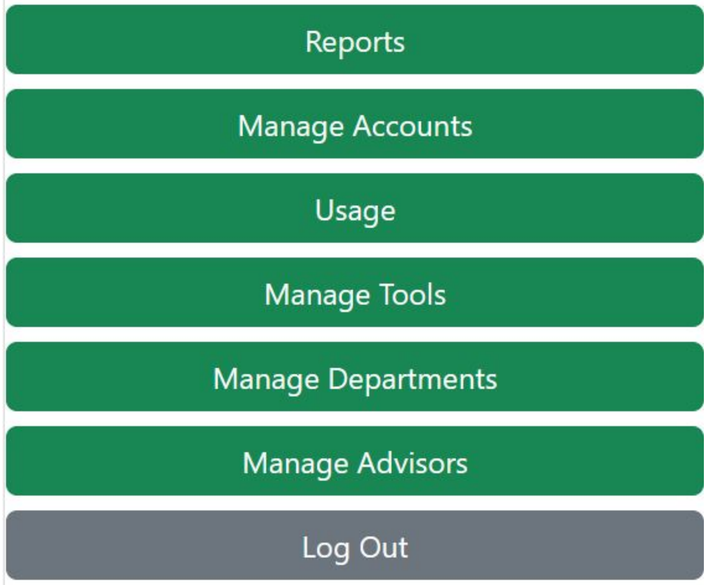




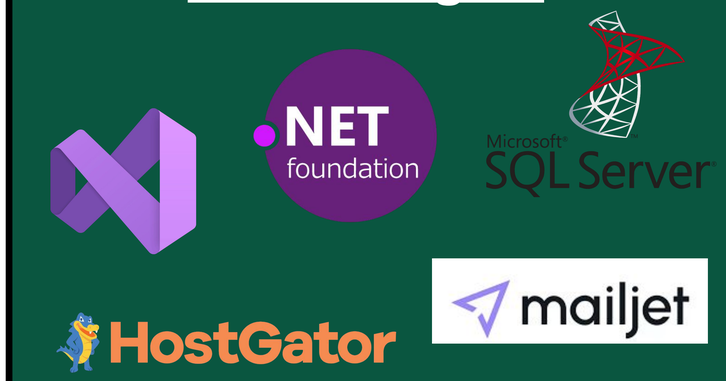
Generated Report

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Grants														
2	ID	Start Date	Start Time	End Date	End Time	User	PO	Project	Hours	Hourly R	Total Cost	Extra 1	Extra 2	Extra 3	
3	1	2023-04-17	14:11:40	2023-04-17	14:11:45	User Tes	ME15-1341JAN	Big Project Im	0.5	$55.00	$27.50	13.00	sfda	asdf	
4	2	2023-04-17	14:18:21	2023-04-17	14:18:27	User Tes	ME23-1DEC	Johsnon Proj	1.5	$32.00	$48.00	-1.00		Test Input	
5	3	2023-04-17	18:44:38	2023-04-17	18:48:31	User Tes	ME23-1341APR	Important ID	2.58	$32.00	$82.56	-1.00		Cool Info	
6	4	2023-04-17	18:45:04	2023-04-17	18:48:12	Md Zahi	ME15-5123SEPT	Temporary Ir	1.75	$42.50	$74.38	-1.00			
7	5	2023-04-17	18:50:09	2023-04-17	18:51:07	User Tes	ME23-1524APR	Formatting P	1.25	$32.00	$40.00	-1.00			
8	6	2023-04-17	18:50:11	2023-04-17	18:50:17	User Tes	ME23-1524APR	Formatting P	2.17	$32.00	$69.44	-1.00		Power	
9															

Admin View



Technologies



Check it out yourself!
https://www.ndsutoolbox.com