

COMPUTER SCIENCE

### Capstone 2023

## Background

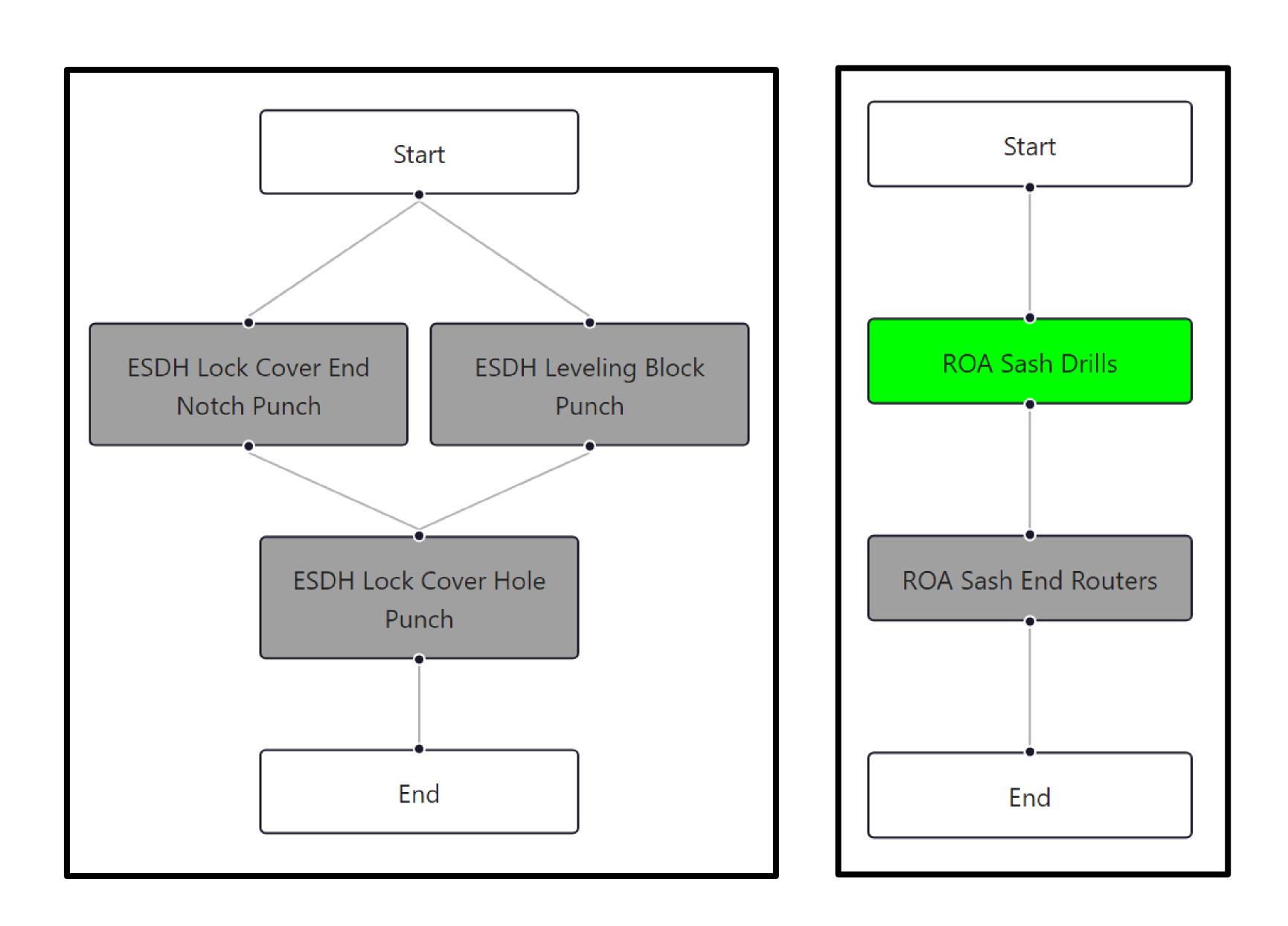
- Marvin manufactures custom, made to order windows.
- They have several fabrication processes involving different groups of machines to prepare parts before they are assembled into finished windows.
- The process that is followed depends on the parts being fabricated
- A "fabrication roadmap" is a representation of the machines used in a fabrication process in the order they are used.

#### **Business Need**

- Web based application
- Create new fabrication roadmaps and edit existing ones
- View roadmaps for a specified cart type (grouping of parts) and producing location.
- View status for roadmap within a batch: for each machine, steps completed vs number of steps to be completed.
- Easy to learn and use

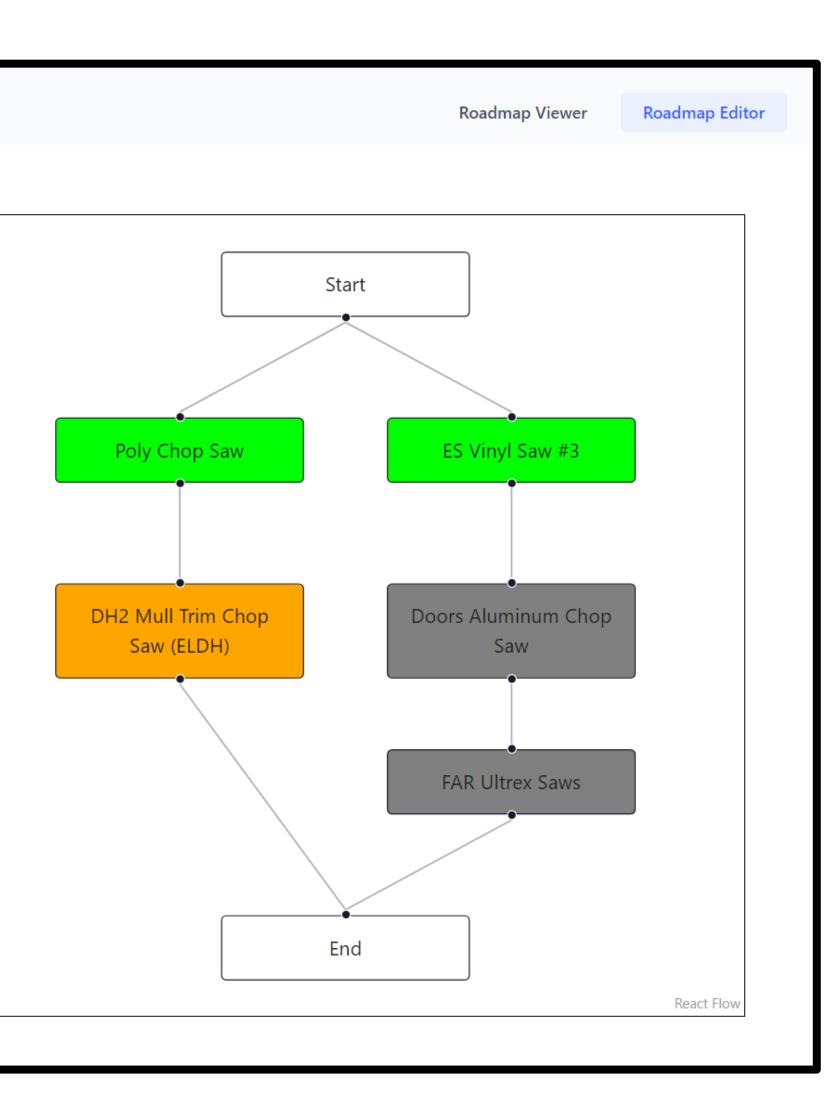
# Fabrication Roadmap Team Members: Connor Gruenes, Kyle Yoder, Grant Hoff, Jared Klevgard, Kole Dorbor Sponsor: Marvin

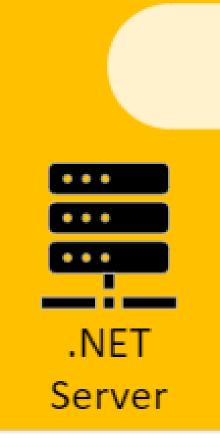
### **Our Web Application**



Belt Line (1)   Elevate Do		ouble Hu	ung ( 🔻	Load Roadmap	
Machine or Mach	ine Group	Insert	Machine		
Edit Node FAR Ultrex Saws		•	Remove Mach	nine	
Change Parents	ES Vinyl Saw #3	•	Add	Remove	
Adjust Position	Left Right				
Preview State	Not Started	•			
<u>Roadmap settir</u>					
Node Spacing	Horizontal + -		Vertical +	-	
Save Roadmap	Delete Roadmap				









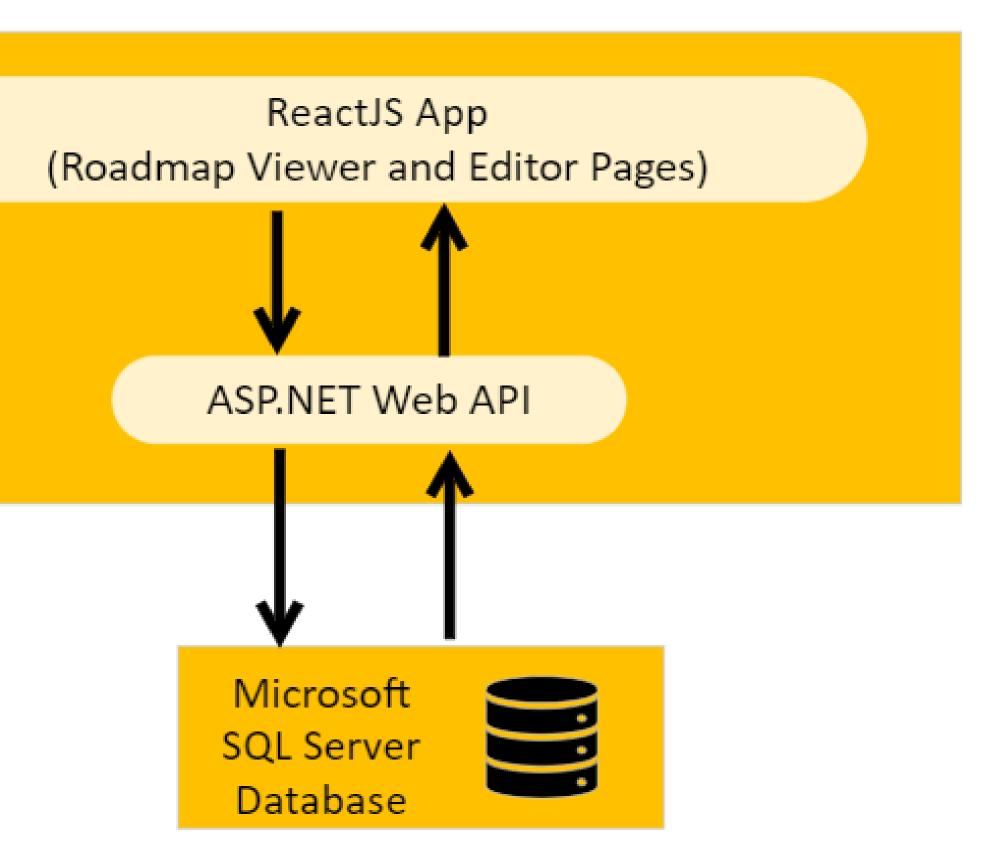








#### **Technical Architecture**



#### **Technologies used**

## **Visual Studio**

**React Flow** 



