Transforming Testing Labs with a Scalable Web App for Whirlpool®

Company Overview

Whirlpool® is a Fortune 500 company and a global leader in home appliances, known for innovation and quality. Its product line includes dishwashers, washing machines, and refrigerators. Whirlpool® operates one of the world's most advanced dishwasher testing labs and is committed to improving efficiency and product reliability through cutting-edge technology.

The Challenge

Whirlpool® has a dishwasher testing process that relied heavily on desktop software and manual workflows to grade and track their tests, which limited the testing lab's efficiency, scalability, and adaptability. The company needed a web application to replace their current system and allow them to add new features, easily make updates, and connect with their current systems. They also wanted to include other Whirlpool® testing labs outside of the dishwasher product line in the future. Creating a user experience that increased tester accuracy and made grading easier was a top priority.

The Approach

The Whirlpool® team partnered with LaunchPad Lab Whirlpool® to design and develop a web application using an Agile approach to address these challenges. The process included:

1. **User Research:** Shadowing the testers to identify pain points and requirements.

2. **UX Design:** Wireframing and prototyping features to enhance workflows and flexibility.

3. **Agile Collaboration:** Coordinating a global team spanning the U.S., Poland, and India to ensure rapid iteration and delivery.

4. **Minimal Viable Product (MVP) Principles:** Focused feature development on key user flows in alignment with the Whirlpool® brands' strategic innovation directives.

Pain Points

✗ Manual processes

✗ Duplicate data entry

✗ Inefficient workflows

✗ Limited view of results

Product Requirements

✓ Streamline testing

✓ Seamless connectivity

✓ Customizable architecture

✓ Enhanced UX

Delivering a Scalable Web App that Redefines Testing Efficiency

The Solution

The Global Washability System (GWS) 2.0 for Whirlpool is a web-based application built using the AngularJS framework.

Administrator Dashboard: Admins can easily manage schedules, lab requests, test procedures, and rack layouts.

Rack Builder: Users can upload an image of a new rack layout, and add labels to each dish for precise testing.

Technician Console: A new intuitive interface simplifies test setup and procedures for scoring for each dish in testing.

Interactive Charts: Easily display filterable test data from the wash cycle and dishwashers.

Test Reporting: Create custom reports by selecting wash cycle test data - then, exported into PDFs for review.

Advanced Querying: Search by numerous cycle options and platforms which can be exported into CSV or XLSX files.

The Results

The new web application has transformed dishwasher testing labs for Whirlpool®, resulting in

✓ **Enhanced functionality for admins**

✓ **Modern, Intuitive UX/UI**

✓ **Streamlined, efficient workflow**

✓ **Improved efficiency worldwide**