Special Topics Outline:

Research and Discovery

# Project Overview

### Who We Are

1. Names, majors, Roles
2. Spreetail Overview

### Project Goals

1. Spreetail’s Vision
2. Reasoning for Project
   1. Value it brings to Spreetail
      1. Reduce cost compared to existing solutions
      2. Increase photography quality of products
      3. Speed up and automate product photography process
      4. Set Spreetail apart from competition with photography

### Our Project vs Others - Research and Discovery

1. Projects with Requirements Laid out
2. Projects with vague idea of final product
3. Our project falls into the latter
4. Researching and discovering possible solutions before development rather than just implementing sponsor-given solution

# Initial Client Input

### Outputs and Features

1. Front End Developed in React with Spreetail Components
2. Capture images of rotating product
3. View images on front end
4. Ability to save images to Azure Blob Storage
5. Our job to research, discover, and develop a solution

### Defining the Development Process

1. Sponsor defined process of development in the beginning
   1. Conforming to different mindset
      1. Learning and Discovery
      2. Testing
      3. Development
   2. Find existing solutions
   3. Research other possible solutions
      1. Pros and cons of each route
   4. Trials and Testing
2. Be prepared for commitment or view shift

# Learning and Discovery Mindset

### Mindset

1. Slow initial progress
   1. Testing of each possible solution takes time
2. Cannot fully commit until fully tested
3. Once committed, start development
4. Requirements and roadmap can change at any time

### Research

1. Existing Solutions and Costs
2. Areas of Certainty vs Uncertainty
   1. Front End done in React with Spreetail Components
   2. Capturing consistent images in 360 view
3. Components with more uncertainty lead to more research
   1. How to capture images?
      1. Webcam
      2. DSLR Cameras
   2. Communication between front and back ends

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### Trials and Testing

1. Need to test possible solutions
   1. DSLR vs Webcams
   2. Web server with HTTP vs Azure message bus
2. Cannot spend too much time on testing
3. Through testing:
   1. Determine best solutions
   2. Bring solutions to sponsor
   3. Discuss and make decision

### Flexibility

1. Ability to leave possible solution at any time
   1. Web server hosted on hardware tower
   2. Azure Message Bus
2. Shift architecture as project progresses
   1. Has been shifted four times
   2. Continuously finding better solutions to problems

# Closing Statements

### Research and Discovery

1. More research and uncertainty leads to slow initial progress while roadmap is being laid out.
2. Developing possible solutions takes time, and in order to test some solutions, code must be written.
3. Allows for more creativity, and the expectation of flexibility allows easy shifts in scope and requirements.
   1. Example: Shift from Webcams to DSLR cameras
   2. Example: Shift from HTTP web server to Azure Message Bus

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# Presentation Objectives

1. Inform audience of Spreetail Project
2. Describe the Research and Discovery Process
3. Give examples of how the research and discovery mindset has affected our project development over time

# Presenters

1. Anthony Tran
2. Jared Nightingale