WHAT R THOSE

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Points to hit:

Presentation strengths: 1 (worst) - 5 (best)

Is the weekly progress clearly stated? 1- 5

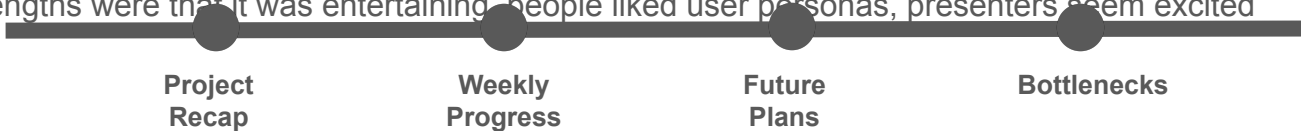Did the live demo work successfully? 1- 5

Our scores last time:

	Overall	Weekly progress stated?	Did demo work?
	4.52	3.92	4.2

118/120

I think we did a great job overall, but could be clearer about stating weekly progress in the very beginning as we scored lowest on that. I think people scored other groups within the first few seconds so even though we had weekly progress indicated, it was in the very last slide, so people already made their decision at that point.

Our strengths were that it was entertaining, people liked user personas, presenters seem excited

Project Recap   **Weekly Progress**   **Future Plans**   **Bottlenecks**

Agenda

👟 Project Recap

👟 Weekly Progress

👟 Plan For the Next 2 Weeks
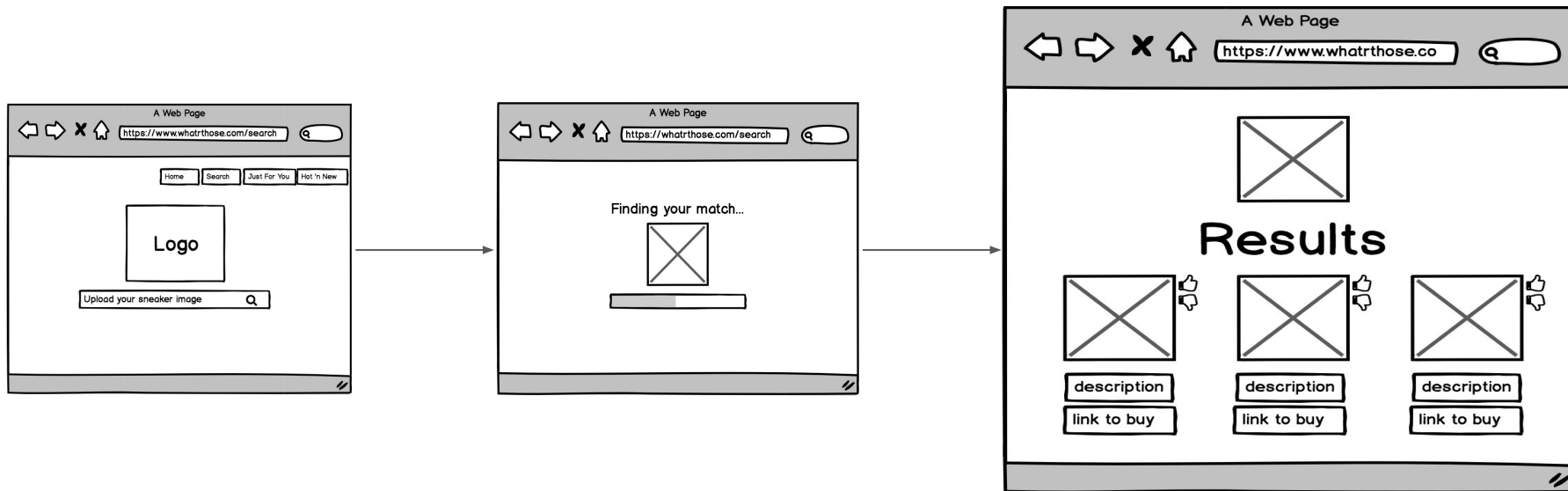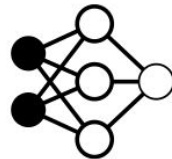
👟 Bottlenecks

What is 'What R Those?'

Sneaker detection and classification

Tell users what brand and model a sneaker is from an image

How does it Work?

1. User loads an image to the website.
2. Image is uploaded to an S3 bucket.
3. Flask calls FastAI Model to classify image.
   a. Create Bounding Box (Faster RCNN) →
   Model Classifier (ResNet34 CNN) → Results (class label, probability)
4. Serve results to frontend.

Weekly Progress

👟 **Front/Backend Development**

- ○ Created new pages (About/Home, Results)

- ○ Connected backend with deep learning models

- ○ Improved UI

👟 **Data Science**

- ○ Tuned accuracy of models to >95%

- ○ Exported models for use in Flask

- ○ Tagged 300 more images for a different brand

Frontend Progress

- 👟 Flask-WTF Forms
  - ○ Image Upload, Drag and drop
  - ○ Connection to S3
- 👟 Message Flashing
  - ○ Correct file format (.jpg, .png, …)
  - ○ Reach certain accuracy
- 👟 HTML, CSS, Javascript, Bootstrap
  - ○ Webcam access
  - ○ Homepage, About, and Results page update
  - ○ UI (Navbar, Carousel, …)

Image Upload + Drag and Drop

👟 Message Flashing

Upload Your Sneaker Image

Upload image or drag it here   Browse

Submit

Access Camera

Something went wrong.
- Image files only!

Upload Your Sneaker Image

Upload image or drag it here   Browse

Submit

Access Camera

Something went wrong.
- This field is required.

Webcam Access

Next Steps..

Frontend / Backend:

- Link results to shopping sources
- Store user results into database for each user
- Webcam feature integrated with classification

Data Science:

- Add second brand to model (New Balance)
- Retrain classification model on cropped images and tune for increased accuracy (>95%)
- Improve model to handle most **lit** shoe varieties

Bottlenecks and Solutions

👟 Bottleneck : Labeling images for new brand
   Solution   : Entire team helps label images

👟 Bottleneck : Finding and Labeling images for **lit** shoe varieties
   Solution   : Entire team helps label images

👟 Bottleneck: Bounding Box model is too large for github
   Solution   : Try S3 or Github Large File storage

Live Demo!