Project Plan
Faia: Fashion Artificial Intelligence Assistant
The Capstone Experience

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Fall 2017
Functional Specifications

- Amazon is one of the largest internet companies in the world, specializing in electronic commerce and cloud computing.
- To increase its role in the fashion market, Amazon is looking to provide a uniquely tailored experience for clothes with the largest catalog of any clothing provider.
- The solution to this problem is Faia, the Fashion Artificial Intelligence Assistant.
- Faia will provide a uniquely tailored experience to shop for clothes that emulates trendy subscription services that deliver a tailored box of clothing based on the customer’s stylistic choices.
Design Specifications

- Users will start using Faia by signing up with their Amazon account online and filling out a style preference questionnaire consisting mostly of sample clothing to choose from.
- After filling out the style questionnaire, the users will be greeted in an SMS message and will interact with Faia using SMS messages.
- The user will get clothing suggestions and will start getting better suggestions after providing feedback about whether they liked the suggested clothes or not.
- Faia will initially be able to communicate through SMS, but the core of Faia will be designed to allow for easy extension to other platforms.
Screen Mockup: Web Interface
Screen Mockup: SMS Interface

Hi, I'm Faia, your own personal fashion assistant! I can help you find clothes that match or compliment styles that you already like.

Here's something you might like.

What do you think of this item? 😊 or 😞

It's ugly

Oh... Ok, thanks for the feedback. I'll make a better suggestion next time!

Let me know if there's anything else I can do for you or anything in particular you're looking for.

faia show me a cool hat

Would you like something like this?

yea thanks

Great! Here's where you would find it and items like it - Adidas Hat
Technical Specifications

- Web signup hosted on EC2 and made with HTML/JavaScript/PHP
- SMS communication handled by Twilio
- User input and responses handled by Amazon Lex and Lambda
- Recommender uses some Amazon Machine Learning and previous user preferences stored in RDS (MySQL) to choose new suggestions
System Architecture

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System Components

• Hardware Platforms
  ▪ Phone (for SMS access)

• Software Platforms / Technologies
  ▪ Amazon Lex
  ▪ AWS Lambda
  ▪ Twilio
  ▪ Amazon Product Advertising API
  ▪ Amazon RDS with MySQL
  ▪ EC2 Web server (with HTML/JavaScript/PHP)
Testing

• PHP Unit Testing for web portions of project
• Will test that the database can be properly accessed and added to even with project changes
• Use W3C Validator to test that the web form appearance isn’t broken at any point
• Peer review
Risks

• Amazon Web Services
  ▪ Description: Integration of several Amazon products and APIs
  ▪ Mitigation: Develop initial prototype with these services

• Machine Learning and Style Preference
  ▪ Description: Recommend products based on user’s style
  ▪ Mitigation: Client is looking to provide us with initial dataset. Products API’s similar products feature will help determine recommendations

• Natural Language Understanding (NLU)
  ▪ Description: Determining user’s intent with fashion related terminology
  ▪ Mitigation: Amazon Lex has the capability to learn common terms

• Communication Medium
  ▪ Description: Limitations with SMS
  ▪ Mitigation: User will first interact with Faia through a web form sign up and SMS messages will incorporate embedded HTML
Questions?