MICHIGAN STATE UNIVERSITY Project Plan Presentation Email Improvement Tool

The Capstone Experience

Team Amazon

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From Students... ...to Professionals

Project Sponsor Overview

- Amazon was founded in 1994 by Jeff Bezos
- Started as online book marketplace and e-reader manufacturer
- Ranked second in Fortune 500 list & part of the Big Five American Information Technology companies
- Online global retailer and web services provider, owns over 100 subsidiaries
- Hosts over 6.3 million sellers & 150 million users
- Amazon's #1 principle is customer obsession



Project Functional Specifications

- Goal: Improve quality of Amazon emails
- Compare new email templates to pre-existing email templates
- Provide instant feedback on email objective, clarity, and empathy
- Provide email summary and possible template duplicates

Project Design Specifications

- The app is a standalone web application
- Follows Amazon color scheme
- Email Analysis Page contains interactive dashboard
- Simple UI for quick use

Screen Mockup: Homepage

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amazon	
Email Improvement Tool	Home
Paste in the body of your email to get started!	
Enter email here Click submit to analyze your email and receive instant feedback.	

Screen Mockup: Analysis Page

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	Email Improvement Tool	1	
E-mail	Category: Requests		
Hello, Michael Thank you for reaching out to us regarding your recent product inquiry. We appreciate your interest in our products and your feedback is important to us.	Select options below for more information		
I'm delighted to assist you with any questions or concerns you may have. Could you please provide me	Ith any questions or Emportby: Bositivo Summary		
with more details about the specific product you're inquiring about? This will help me give you the most accurate and helpful information. Once I have more information from you, I'll be able to provide a more detailed response and address any concerns or questions you may have. Feel free to include any order or product details that could be relevant to your inquiry.	Clarity: Very Clear	In response to the customer's product inquiry, the email expresses gratitude for the customer's interest and offers assistance. The email politely asks for more specific details about the product in question to provide accurate	
In the meantime, if you have any other questions or if there's anything else we can assist you with, please don't hesitate to let us know. We're here to ensure your experience with our products is as positive as possible. Thank you for choosing our products, and we look forward to assisting you further.	Possible Dup		

Screen Mockup: Summary Pop-Up

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Summary

In response to the customer's product inquiry, the email expresses gratitude for the customer's interest and offers assistance. The email politely asks for more specific details about the product in question to provide accurate information. It assures the customer that any questions or concerns will be addressed promptly and encourages them to reach out for further assistance. The email concludes with a friendly tone, expressing appreciation for the customer's choice of their products and readiness to assist.

The Capstone Experience

Team Amazon Project Plan Presentation

Screen Mockup: Duplicates Page

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← → C (0) * 🛛 😳 i
amazon					
		Email Improv	vement Tool		Home
	Dear ICustomer's Namel, I hope this email finds you well. This woo for controlling us insganding your return sequars. We understand that you may have incohered a product that didn't meet your expectations, and write here to sensist you with the return process. To ensure a smooth return ensure a smooth return sensor.	Duplicates During the second s	Dear (Customar's Name), I hope this message finds you well, Thank you for maching out to us with your special request. We appreciate you business and ore committed to inserting your unique meth. Your request has been received and is inportant to us. We understand that this is a operial circomstance, and we will do our intensit to accommodate your medis. Our team's currently reviewing your request to determine the best way to assist you.	Dear (Customer's Name); I hope this email finds you well. Think you for contacting Anazan customer support. We sincerely apologize for any inconventioner autour use are committed to reporting your inquiry as packety and offectively as possible.	

Screen Mockup: Duplicates Pop-Up

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Email



Thank you for reaching out to us regarding your recent product inquiry. We appreciate your interest in our products and your feedback is important to us,

I'm delighted to assist you with any questions or concerns you may have. Could you please provide me with more details about the specific product you're inquiring about? This will help me give you the most accurate and helpful information. Once I have more information from you, TI be able to provide a more detailed response and address any concerns or questions you may have. Feel free to include any order or product details that could be relevant to your inquiry.

In the meantime, if you have any other questions or if there's anything else we can assist you with, please don't hesitate to let us know. We're here to ensure your experience with our products is as positive as possible.

Thank you for choosing our products, and we look forward to assisting you further.

Duplicate

Hello, Michael

Thank you for reaching out to us regarding your recent product inquiry. We appreciate your interest in our products and your feedback is important to us.

I'm delighted to assist you with any questions or concerns you may have. Could you please provide me with more details about the specific product you're inquiring about? This will help me give you the most accurate and helpful information. Once I have more information from you, I'll be able to provide a

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Project Technical Specifications

- React web application, supported by Node.js
- Leverages Amazon Web Services for deployment and cloud technologies
- Utilizes AWS SageMaker and Comprehend to make ML queries
- Data stored in NoSQL and DynamoDB

Project System Architecture



Project System Components

- Software Platforms / Technologies
 - AWS Amplify Host web application
 - API Gateway Creates and manages the APIs for the lambda functions we will create
 - Lambda Creates functions that will manage events on our web app such as finding potential duplicates
 - SageMaker ML service used to classify the emails by category, determine clarity, and summarize
 - Comprehend NLP service used to analyze empathy/tone
 - DynamoDB Stores the summaries for future reference
 - S3 Bucket Stores the training/testing data for ML

Project Risks

Categorizing, Testing and Training Data

- Since there are 10+ main categories that split into 40+ sub-categories, we are unsure if we will have enough training data to accurately classify each sub-category.
- We will continue to push our sponsor to give us the data we need and once received determine the best method for categorization. We may have to reduce the categories to the main 10+.

Data Storage

- Determining the optimal method for storing the data provided to us with the AWS services available to us.
- Research and work with sponsor to learn more about the available storage methods and find which works best with our data.

Project Expense

- We have been provided a \$100/month budget to use AWS services and we must stay below this figure.
- We will implement cost-effective strategies with how we use the AWS services to stay below this monthly threshold.