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Cloud Computing Predict Overview

Predict Overview

Upon completion of this predict you will have fully functioning and intelligent website

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In this predict you will be **building** and **hosting** a static website that displays all of your **world class data science and machine learning portfolio projects**. You will also add intelligent **email response functionality** to your website; allowing you to automatically send a context-aware email to individuals who post an enquiry on your site.

All of this will be possible with the help of various **AWS services** and some **Python programming**.

Overview of the Predict

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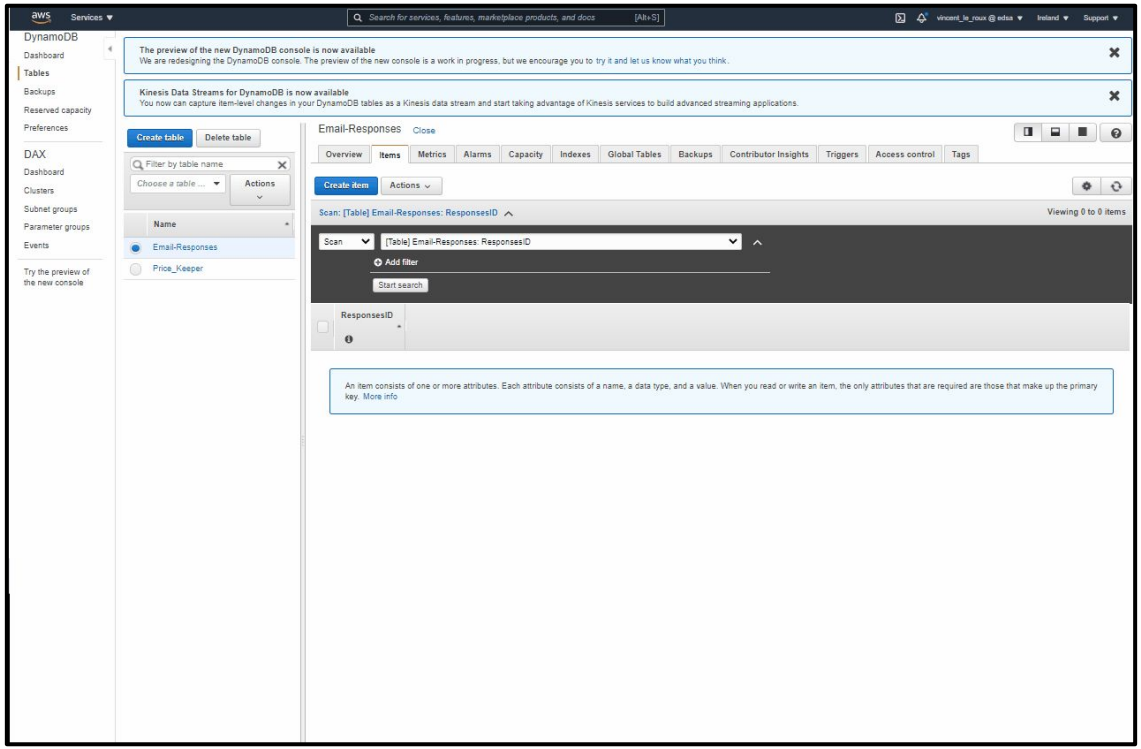
Visualising the End Product: Full Solution

To get a feel for what your end product could look like please visit this link

Visualising the End Product: Write Data to AWS DynamoDB

To get a feel for what your end product could look like please visit this [link]



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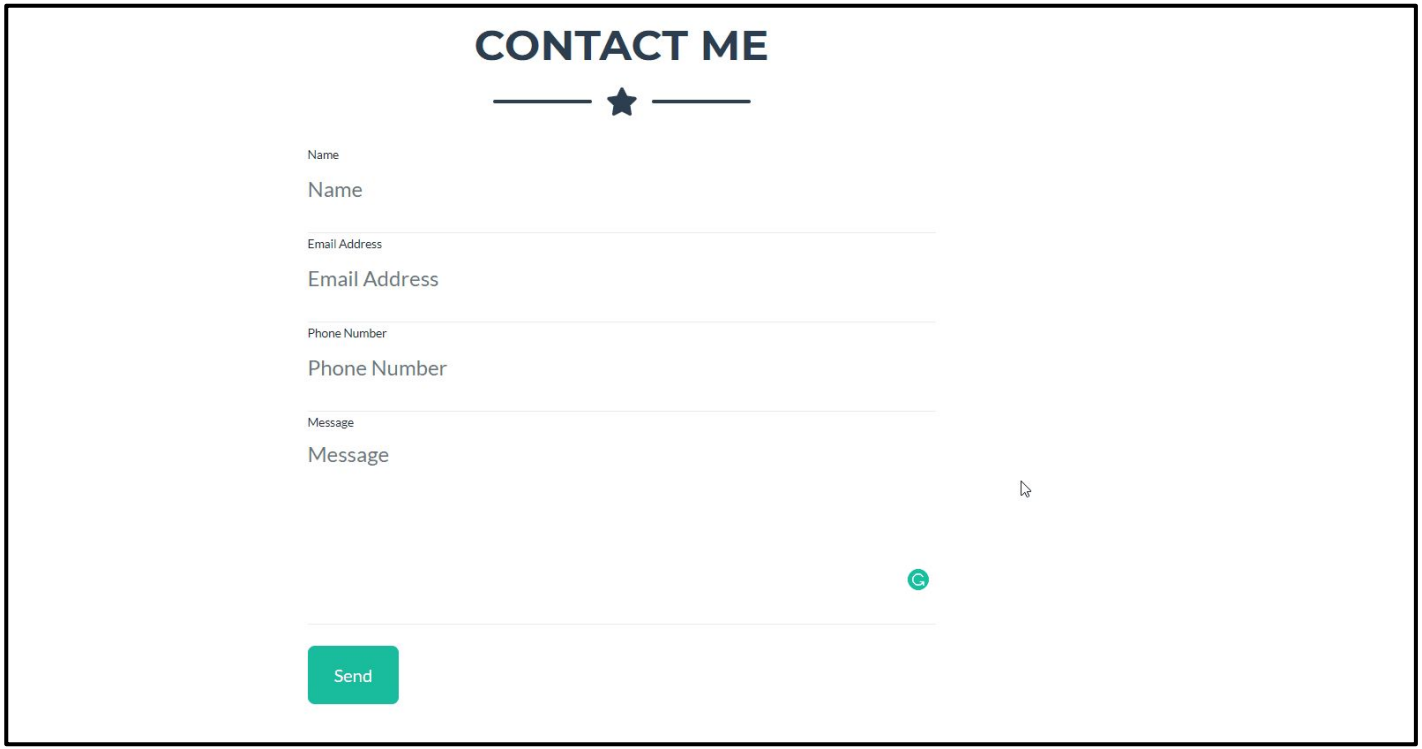
Visualising the End Product: Email Functionality

To get a feel for what your end product could look like please visit this link



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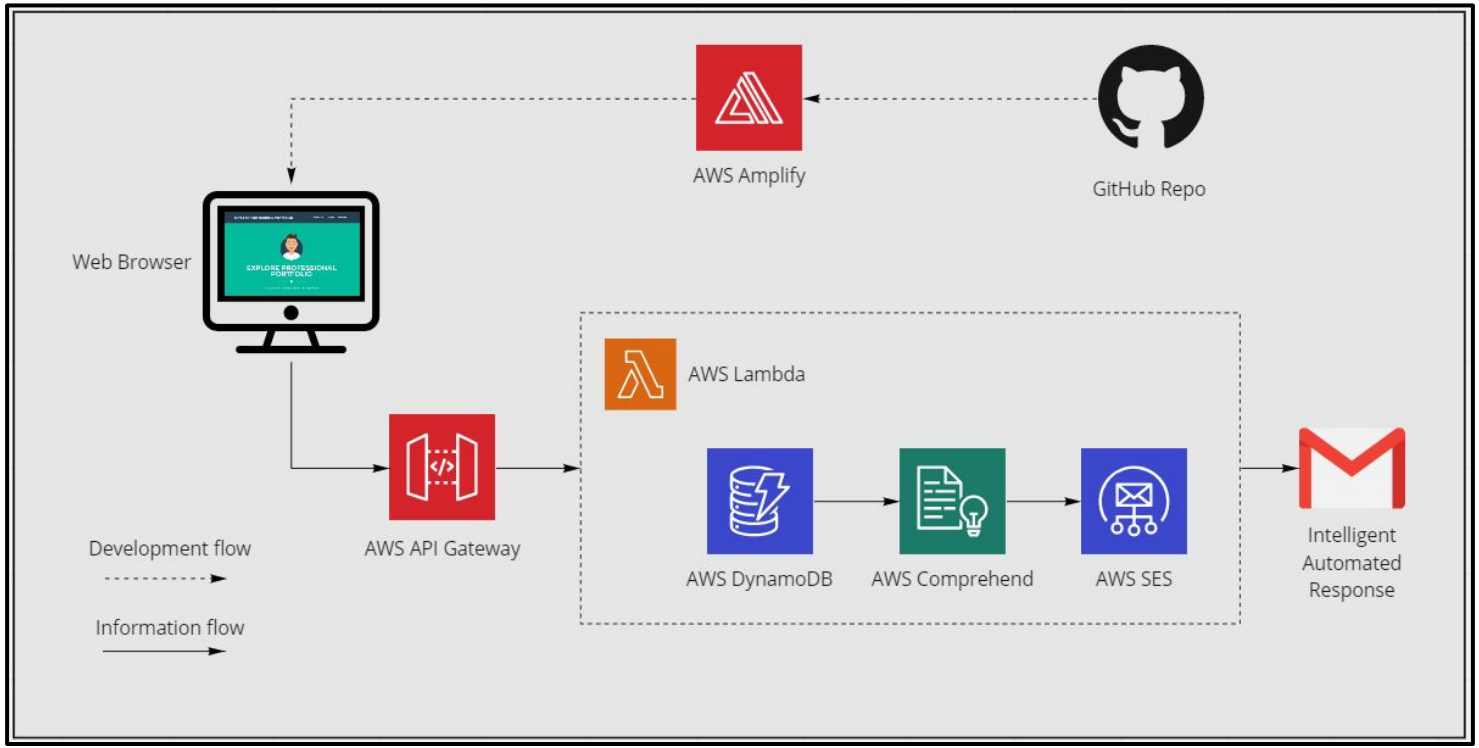
Serverless Student Portfolio Web page

The figure below provides an overview of the system to be developed in this predict



Summary of Services Used in this Predict: Part 1

GitHub: A **dedicated** private/public repo **forked** from an **EXPLORE template** repo which **houses** all the **content** and instructions for student to complete the Predict.

AWS Lambda: A **serverless compute instance** responsible for multiple processing steps:

- **Stores the enquiry details** within an **AWS DynamoDB instance** for later retrieval.
- **Forwards the enquiry contents** to AWS Comprehend to help **formulate** an **intelligent response** to the site visitor.
- Upon **successful completion** of these tasks, **sends** a **confirmation signal** to an **EDSA Lambda** for **automated** marking.

AWS Amplify: Responsible for **serving the static web content** hosted in **GitHub** which becomes the **basis** of your **web page.**

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Summary of Services Used in this Predict: Part 2

AWS DynamoDB: A **NoSQL** database responsible for **storing enquiry** details from individuals visiting your webpage.

AWS SES: An **automatable email service** responsible for returning an **intelligent response** to webpage visitors based upon their enquiries.

AWS API: AWS service responsible for **receiving enquiry details** via an **API call** from the student webpage, and for passing these on to the internal lambda function.

AWS Comprehend: An intelligent NLP service capable of characterising sentiment and extracting key-phrases from ingested text. Used to detect topics within the received webpage enquiries.

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Critical Themes that We Will Touch on In this Predict

During the predict you will apply many skills learnt throughout the Cloud Computing Digital Skill, as well as some new ones. These include:

1. Setting up AWS IAM Roles
2. Creating DynamoDB NoSQL database
3. Using AWS Comprehend to extract sentiment and key phrases from a body of text
4. Use AWS SES to send emails
5. Writing data to a DynamoDB database automatically
6. Modify a static website to represent your unique portfolio projects
7. Host a static website in a serverless manner
8. Write helper functions in Python that build intelligent email responses based on logic

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Your Mission - Implementing Your Own Version of the Predict

Make this predict your own by creating a personalised data science portfolio website capable of sending intelligent responses to interested recruiters and site visitors

Cloud Computing Predict

Predict Instructions

To successfully implement this predict we have provided you with a detailed end-end description of what is required where. This detailed description includes:

- Overview Instructions: This file takes you through the predict step by step and should be your first point of reference.
- Relevant Python Files: These boilerplate code files will be used to build out your final predict functionality.
- Predict Submission File: A simple csv file in which you should submit your relevant predict details.

⚠ **Please note** ⚠

You have permission to modify the predict files for **private use**. You **do not have permission to distribute your solution code or share it in a public setting**. Hence, your predict project should sit in a private repository on GitHub.

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Next Steps

Now that you have a high-level understanding of what is required, it is time to jump in and start building your very own intelligent portfolio web app

Instructions

- Go to this link and follow the instructions in the README.md file step by step to build out your intelligent portfolio web app

Need help?

- See if you can find your way to a solution by reading AWS whitepapers, AWS product documents, and researching some relevant tutorials.

Submission

- This predict will be graded through automated means. To ensure that you are assessed fairly, submit your predict details in the provided format and critically evaluate if your solution produces the desired end result at each ***Predict Task*** step. This includes verifying the edsa.predicts@explore-ai.net email address via AWS SES.
- Your **predict deadline** will be communicated to you within the **Predict tab on Athena**.

Please consult the student forum for cloud computing predict related FAQs

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