INFO 7374 Algorithmic Digital Marketing
Project Proposal
Team 7

Group Members

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Topic

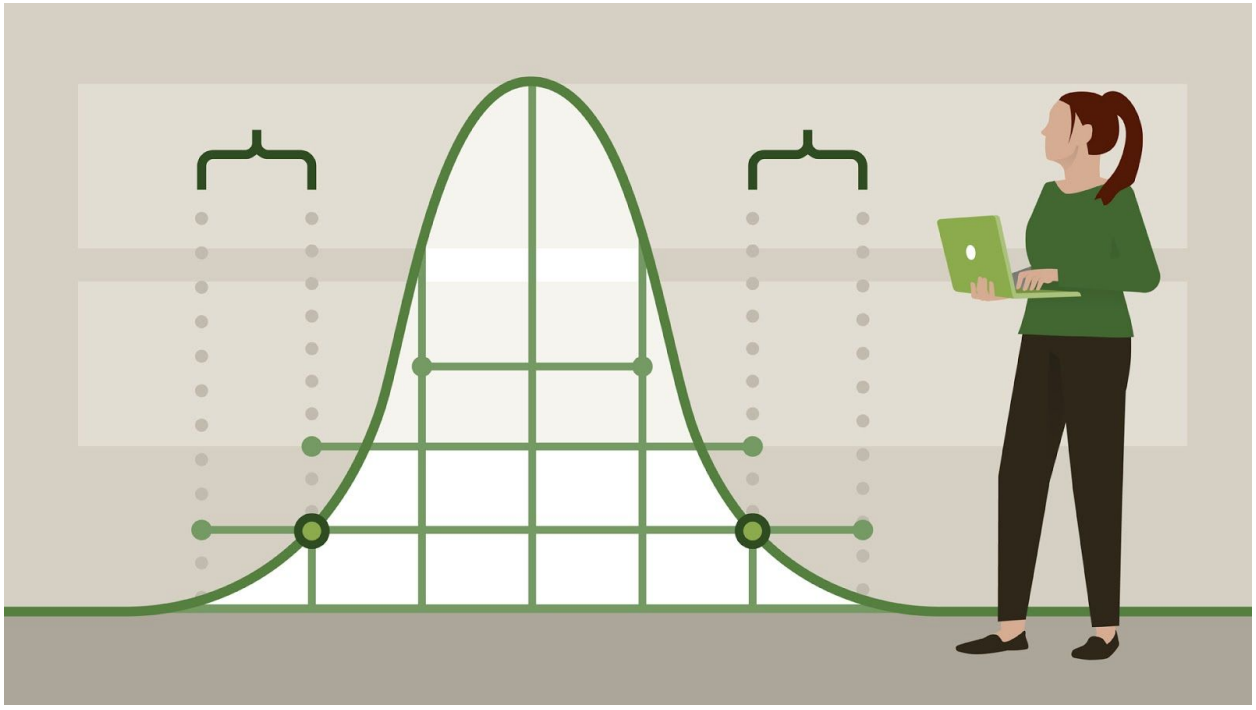
Targeting advertisements to relevant customers and finding the best marketing model to maximise Return On Investment for the marketer.

Problem Statement

The biggest problem faced by marketers is that they aren't able to target the people who will turn into customers and this leads to overspending. This is because different marketing models work differently and prove to be efficient in different scenarios with different kinds of customers.

Primary Objectives:

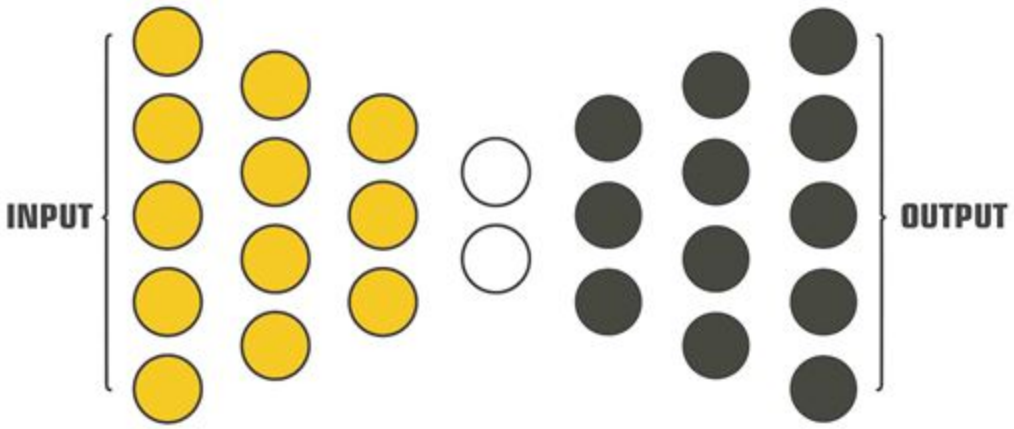
1. Choose the best model to use for the proper ad campaign for the appropriate section of customer.
2. Check the likelihood of Customer to churn out.



Models:

1. Logistic Regression
2. Decision Tree
3. Artificial Neural Network with Keras

Python Libraries:



Dataset Description

The dataset has been taken from Kaggle:
https://www.kaggle.com/fayomi/advertising

Initial dataset chosen has 10 columns and 1000 rows
Second step on Dataset will be generated so total 10 columns and 2000 rows

Implementation

- Language: Python

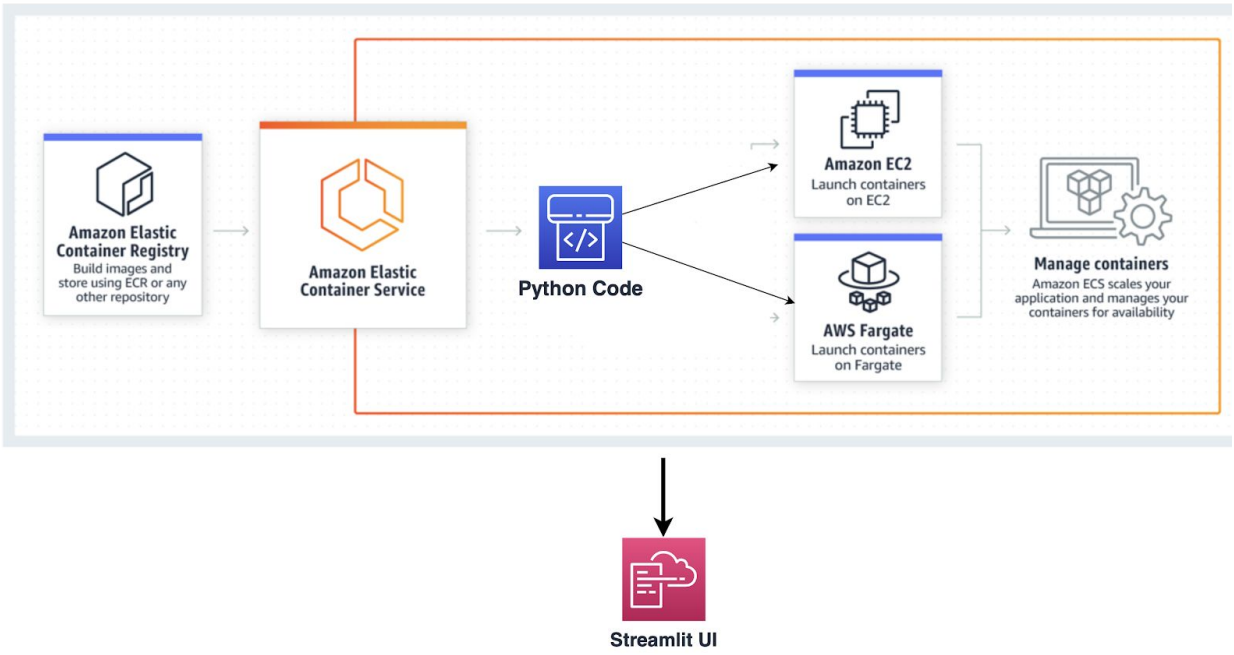
- Cloud services: Amazon Web Services or AWS ec2

- Visualizations: Streamlit

Course Of Action

1. Data pre-processing: Handling missing values and data cleaning
2. Exploratory data analysis
3. Implementation of different models on the dataset
4. Using machine learning algorithms for predictions
5. Deployment of model on Amazon Web Services
6. Generating web based visualization and deploying on AWS to demonstrate the predictions.

Deployment Pipeline



Milestones

Timeframe	Task
Day 1-2	Data Pre-Processing
Day 3-5	Exploratory Data Analysis
Day 6-8	Implementation of models on Python
Day 9-11	Web application using Streamlit
Day 12-14	Deployment of model on AWS