

**INSURANCE PREMIUM PREDICTION**

PROJECT ARCHITECTURE

DOMAIN: Machine learning

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**ARCHITECTURE :**

**Deployment:**

*Deployment is done on amazon web services(aws)beanstalk.*

**Architecture description:**

1. *Data preparation:* *The health condition data form the insurance company. The goal of this project is to build a prediction model using multiple machine learning techniques and to use a template to document the end-to-end stages. We're trying to predict the expenses the client will make on the premium of insurance.*
2. *Data preprocessing: data preprocessing step, we check if there missing data, duplicate values, and data types of each feature. In our dataset, there was not any null and duplicate values*

**Model development:**

*Model Implementation and validation:*

*We train and test splitting of the data, pipeline containing Standard Scaler and One Hot Encoder was fitted to several models such as Linear Regression, SVR, Decision Tree Regressor and Random Forest Regressor. Their R2 score were obtained. And it was determined that Random Forest Regressor performs better than other models*

*Deployment in cloud:*

*The code is committed to GitHub by creating a repository. The cloud platform used is the amazon webservices beanstalk. Code pipeline and the environment created in the aws.*