**Hope Artificial Intelligence**

**Assignment-Regression Algorithm** 

Download Set:

Google Drive Link [Click here](https://drive.google.com/file/d/1H6cqq5ZMFaKH1FtyCG7uF2jtFpBpLpn1/view?usp=sharing) .

Git Hub Link: https://raw.githubusercontent.com/RamishaRaniK/dataset/main/insurance\_pre.csv

**Problem Statement or Requirement:**

A client’s requirement is, he wants to predict the insurance charges based on the several parameters. The Client has provided the dataset of the same.

As a data scientist, you must develop a model which will predict the insurance charges.

1. Identify your problem statement

**Predicting Insurance changes**

1. Tell basic info about the dataset (Total number of rows, columns)

**1338 rows × 6 columns**

1. Mention the pre-processing method if you’re doing any (like converting string to number – nominal data)

**Converting the Categorical columns (sex and smoker) column into numerical column using get\_dummies method**

1. Develop a good model with r2\_score. You can use any machine learning algorithm; you can create many models. Finally, you have to come up with final model.

**Best Model: SVM,Kernel=rbf, C=3000,gamma=scale :R2=0.866339395**



1. All the research values (r2\_score of the models) should be documented.

(You can make tabulation or screenshot of the results.)

**Done**

1. Mention your final model, justify why u have chosen the same.

Kindly create Repository in the name Regression Assignment.

**Done**

Upload all the ipynb and final document in the pdf **Done**

Communication is important (How you are representing the document.)

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