Hope Artificial Intelligence **Assignment-Regression Algorithm **

Download Set:

Google Drive Link Click here .

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

**Problem Statement or Requirement:**

The client requests a prediction of insurance charges based on several parameters. The client has provided the relevant dataset for this purpose.

As a data scientist, you are required to develop a model that will predict insurance charges.

* Identify the problem statement.
* **Predict insurance charges**
* Provide basic information about the dataset (total number of rows, columns).
* **Number of rows: 1338**
* **Number of columns: 6**
* Mention the pre-processing methods if applicable (e.g., converting string to numeric data – nominal data).
* **The dataset includes two categorical fields: sex and smoker. These will be converted to numerical values using the 'get dummies' method.**
* Develop a model with an R² score. You may choose any machine learning algorithm and develop multiple models to select the optimal one.
* Document all research values (R² scores of the models). This can be done through tabulation or screenshots of the results.
* Mention your final model, justify why u have chosen the same.

Please create a repository named Regression Assignment. Upload all the Jupyter Notebook (.ipynb) files and the final document in PDF format. Ensure clear communication in how the document is presented.

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