**Health Insurance Lead Prediction**

Your Client FinMan is a financial services company that provides various financial services like loan, investment funds, insurance etc. to its customers. FinMan wishes to cross-sell health insurance to the existing customers who may or may not hold insurance policies with the company. The company recommend health insurance to it's customers based on their profile once these customers land on the website. Customers might browse the recommended health insurance policy and consequently fill up a form to apply. **When these customers fill-up the form, their Response towards the policy is considered positive and they are classified as a lead.**

Once these leads are acquired, the sales advisors approach them to convert and thus the company can sell proposed health insurance to these leads in a more efficient manner.

Now the company needs your help in building a model to predict whether the person will be interested in their proposed Health plan/policy given the information about:

* Demographics (city, age, region etc.)
* Information regarding holding policies of the customer
* Recommended Policy Information

**Evaluation**

The evaluation metric is roc\_auc\_score.

**Dataset Description**

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| **Variable** | **Definition** |
| ID | Unique Identifier for a row |
| City\_Code | Code for the City of the customers |
| Region\_Code | Code for the Region of the customers |
| Accomodation\_Type | Customer Owns or Rents the house |
| Reco\_Insurance\_Type | Joint or Individual type for the recommended insurance |
| Upper\_Age | Maximum age of the customer |
| Lower \_Age | Minimum age of the customer |
| Is\_Spouse | If the customers are married to each other (in case of joint insurance) |
| Health\_Indicator | Encoded values for health of the customer |
| Holding\_Policy\_Duration | Duration (in years) of holding policy (a policy that customer has already subscribed to with the company) |
| Holding\_Policy\_Type | Type of holding policy |
| Reco\_Policy\_Cat | Encoded value for recommended health insurance |
| Reco\_Policy\_Premium | Annual Premium (INR) for the recommended health insurance |
| Response (Target) | 0 : Customer did not show interest in the recommended policy, 1 : Customer showed interest in the recommended policy |