HEALTH INSURANCE PREMIUM PREDICTION USING IBM AUTO AI SERVICE

K. YASWITHA(17RH1A05B0)

G. SHIVANI(17RH1A0564)

B. KAVITHA(17RH1A05A1)

INTRODUCTION

▶ The main foundational block of health insurance industry is to estimate the future events and measure the associated risk of these events.

▶ Hence it is needless to say that predictive analytic is used wisely to determine the risk insurance premium and enrich overall customer experience.

SOLUTION

▶ By using predictive modeling, the insurers can determine the policy premium for the

▶ insured based on their behaviors which are indicated by attributes such as age, BMI (Body Mass

▶ Index), smoking habits, number of children

▶ Based on these predictions, they can then evaluate the following decisions and make better judgement calls.

○ Which individuals deserve which kind of insurance plan?

○   Based upon an individual's behaviour, predicting their premium helps in better risk management.
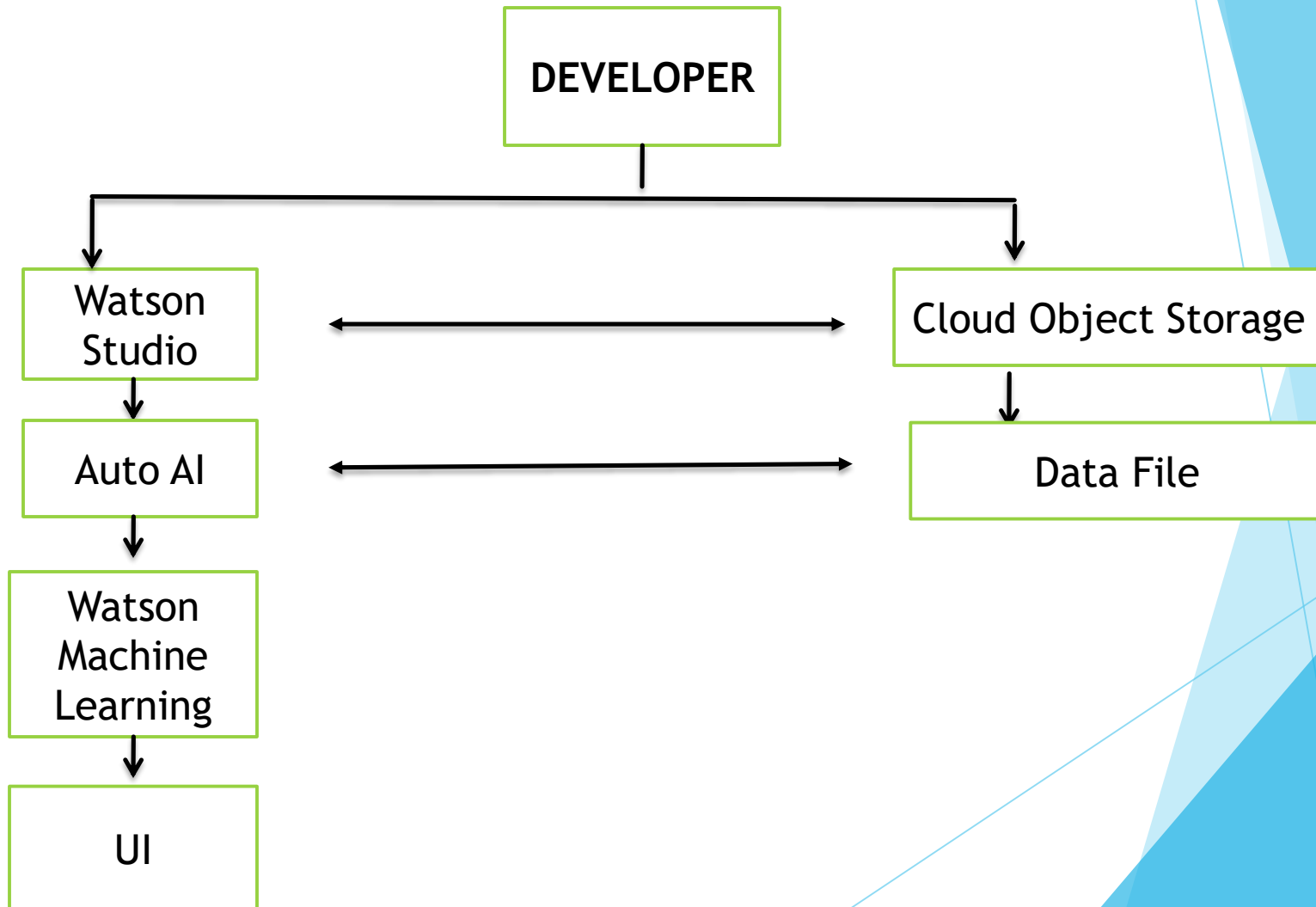
SOLUTION

▶ Using IBM AutoAI, we automate all of the tasks involved in building predictive models for different requirements. You create a model from a data set that includes the age, gender, BMI, number of children, smoking preferences, region, and charges to predict the health insurance premium cost that an individual pays.
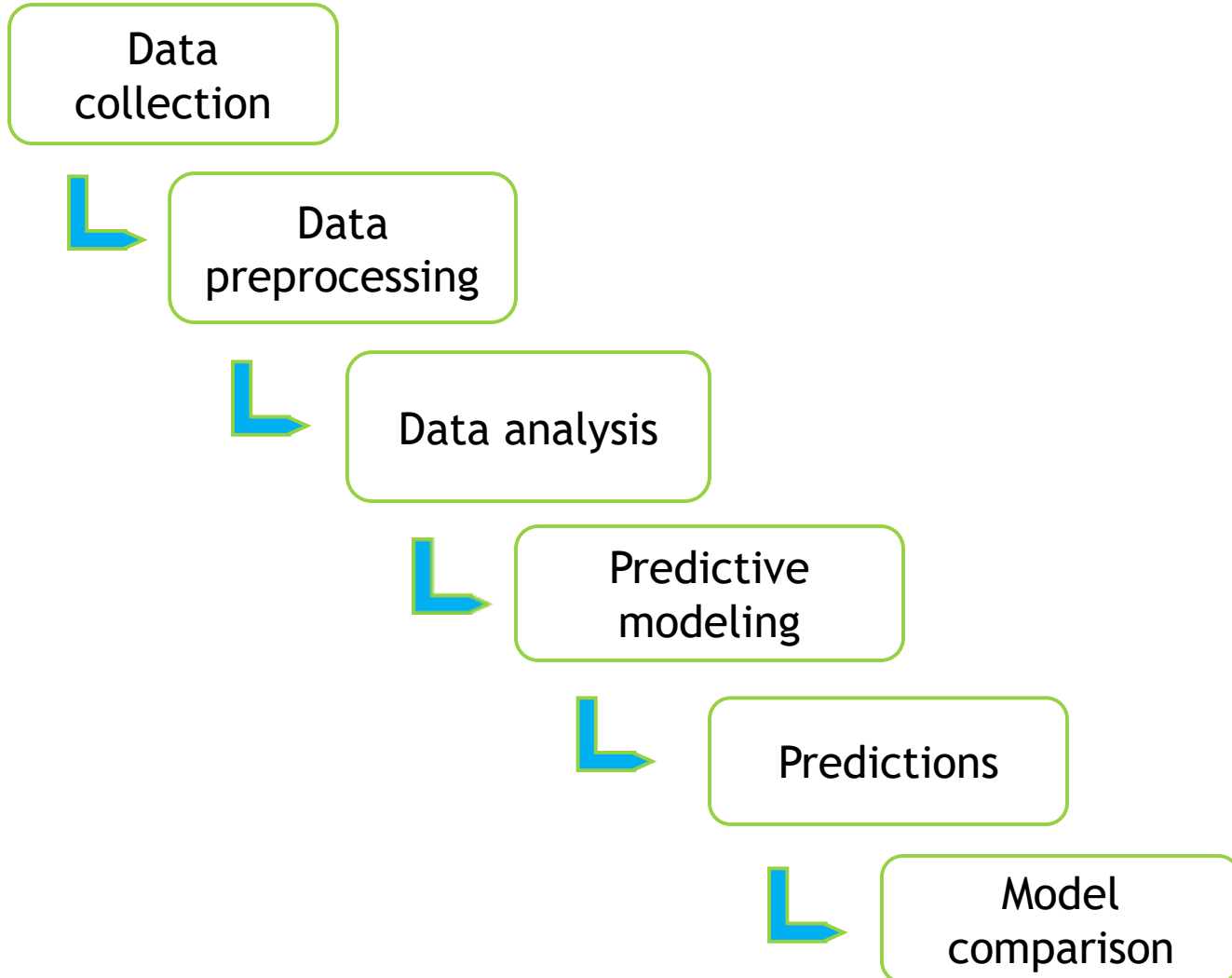
TECHNOLOGIES

- Watson studio
- Node red
- IBM cloud
- IBM Machine Learning

ARCHITECTURE

FLOW CHART

Data collection

Data preprocessing

Data analysis

Predictive modeling

Predictions

Model comparison

ADVANTAGES

- Simplifies complex calculations.

- Charges premium based on individual's behavior .

- Provides accurate premium price to the user.

- Knowing accurate amount of the medical insurance premium makes it easier to plan a financial schedule.

- Covers pre and post hospitalization expenses.

CONCLUSION

▶ By using health insurance premium prediction, companies can charge the accurate premium based upon a specific individual's attributes.

▶ This will not only help the individuals in getting charged the right amount of premium for their health insurance but will also help in forging better relationships and a level of trust between the insurance company and the insured.

FUTURE SCOPE

▶ There are certain limitations which is the scope of further studies. The data did not include any information on an individual's medical costs, the real-time data i.e. data collected from the sensors in the wearable health devices such as fit bits etc. If we take all these types of different data sources into account then we can have a better picture of an individual's behavior and can more accurately predict the insurance premium charge and the associated risk.

Thank you