Predictive Health Insurance Model for Shield Insurance

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Objective: Align team members with project goals and expectations.

- Introduction and informal conversation to build rapport.
- Review and discussion of the Project Charter.
- Identifying hopes and fears related to the project.

Clear understanding of project scope and initial strategies to address potential challenges.

Hopes:

- Achieve extreme customer satisfaction for Shield.
- Maintain effective communication channels.
- Receive cleaner and more reliable data compared to previous projects.

Utilizing Python for **accurate predictions** of insurance premiums can enhance decision-making for both insurers and policyholders.

Fears:

- Unrealistic Client Expectations: Managing and setting achievable goals.
- Feature Creep: Preventing unplanned additions that may delay deadlines.

Data Quality:

- Commitment to obtaining cleaner data to ensure model accuracy.
- Personal assurance from Nick to maintain a single point of contact from Shield.

Managing Feature Creep:

- Reinforce the importance of adhering to the MVP (Minimum Viable Product).
- Implement phase-wise planning to accommodate additional features without affecting the primary timeline.

Data Quality:

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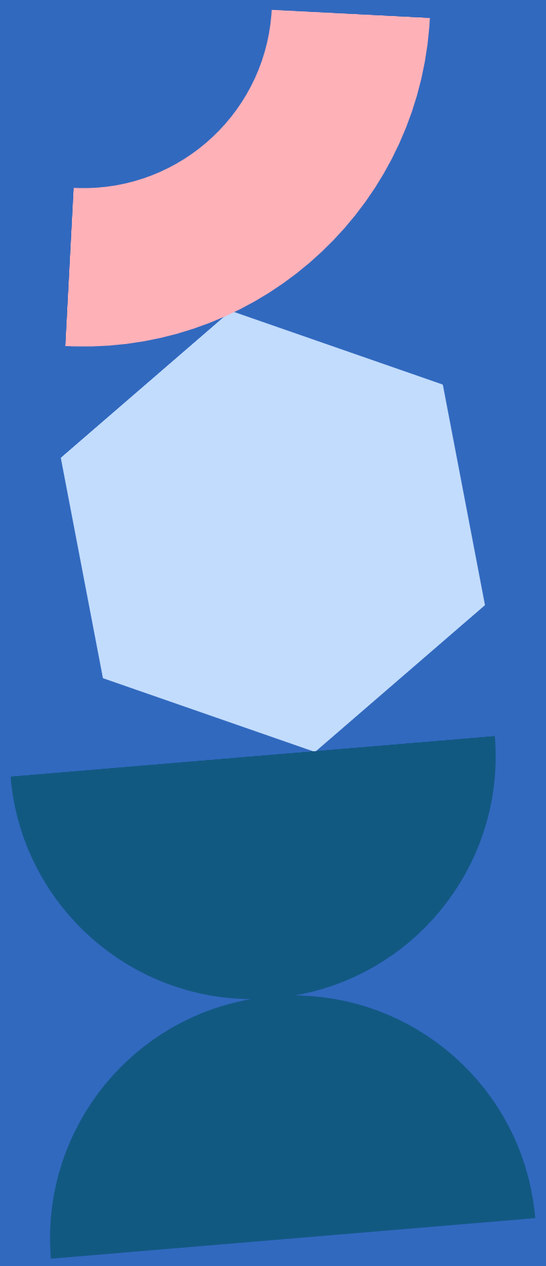
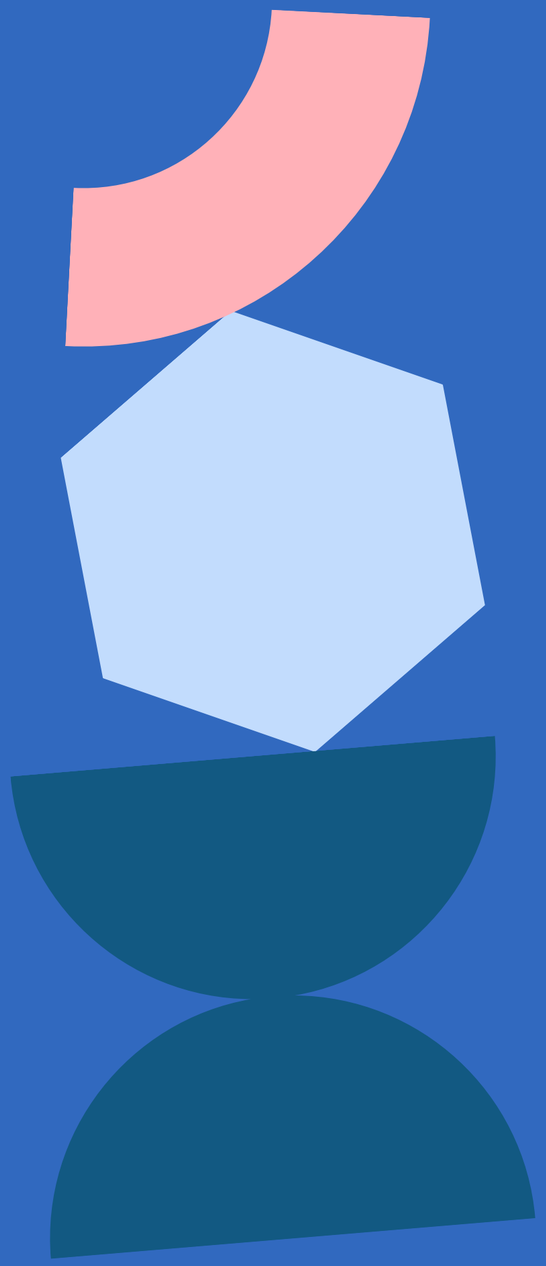


Scope of Work:

Your company will develop a **predictive model** *for Shield Insurance to estimate* **health insurance premiums** *based on factors like* **age**, **smoking habits**, **BMI**, *and* **medical history**.

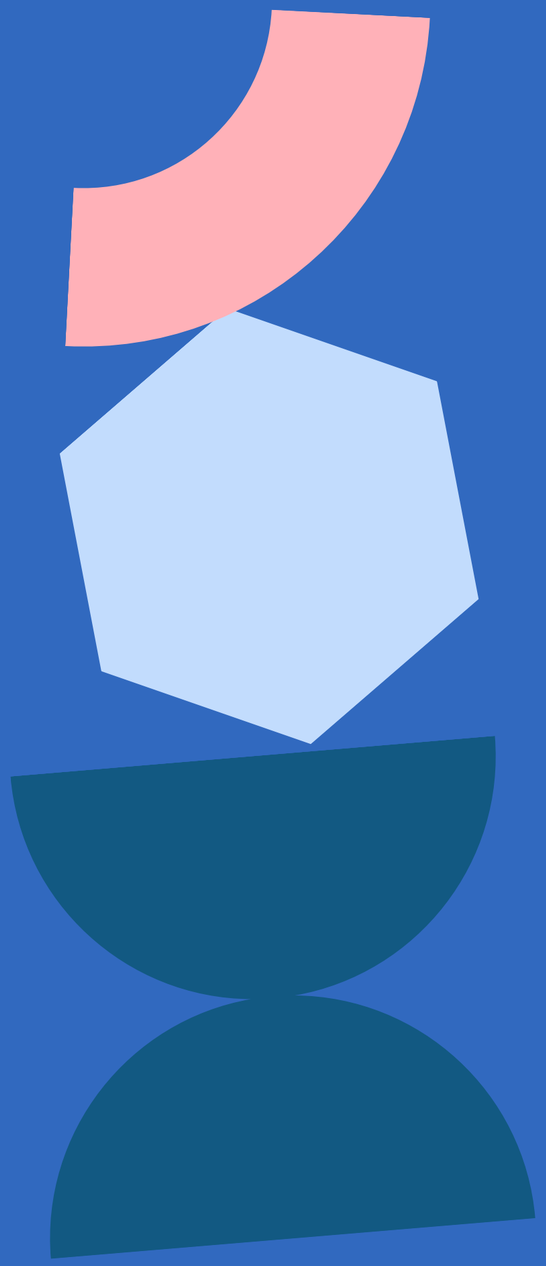
Project Deliverables:

Build and deploy a ***predictive model*** *with a* ***Streamlit application***.



Objective:

- Develop a high-accuracy (>97%) predictive model. The percentage difference between the predicted and actual value on a minimum of 95% of the errors should be less than 10%.
- Deploy the model in the cloud so that an insurance underwriter can run it from anywhere.
- Create an interactive Streamlit application that an underwriter can use for predictions.

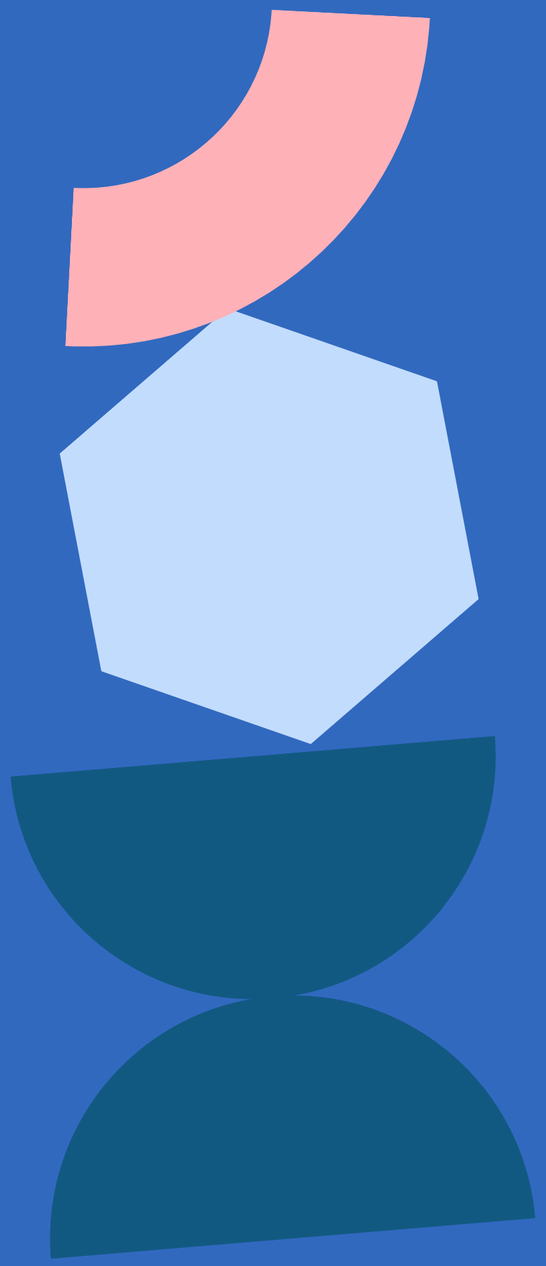


Data Collection and Preprocessing:

- Collect and clean labeled datasets.
- Perform exploratory data analysis (EDA).

Model Development:

- Train and evaluate multiple models.
- Optimize the best model for accuracy.

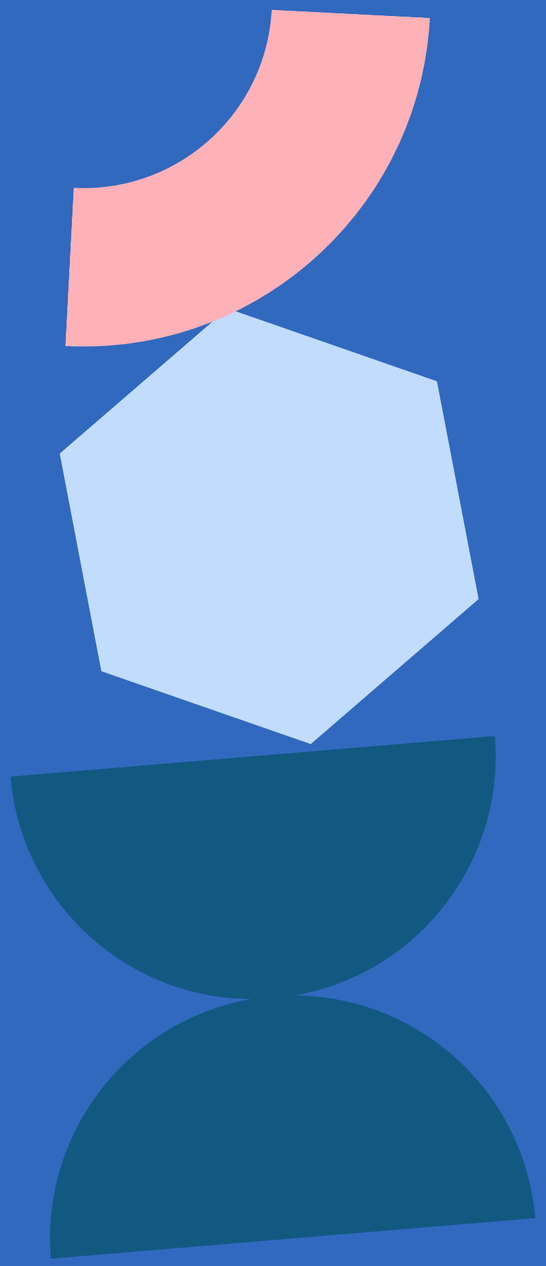


Model Deployment

- Deploy the model on a cloud platform.
- Ensure security and scalability.

Streamlit Application Development

- Build an interactive app for inputting factors and displaying predictions.



Thank you