Phase 2:
Project Innovation and Implementation Plan

Project Statement: Our project revolves around harnessing the power of IBM Cognos to dig deep into sales data, extracting valuable insights that can revolutionize businesses' inventory management and marketing strategies. We need to uncover the top-selling products, pinpoint peak sales periods, and understand customer preferences. In this comprehensive project, we'll outline our analysis goals, undergo data collection, devise a visualization strategy within IBM Cognos.

TRACTION

➔FUTURE ANALYSIS

Basically, future product analysis can be a valuable tool for product-based companies to make informed decisions and drive their business forward. By analyzing and forecasting future trends, customer preferences, and market dynamics, companies can better position themselves for success. Here's how future analysis can help, along with a graphical representation:

1. Market Trends Analysis

Companies can identify where the market is headed and adjust their product development and marketing strategies accordingly.

2. Customer Preferences

Companies can tailor their products to align with changing customer preferences, ensuring they remain relevant in the market.

3. Demand Forecasting

Accurate demand forecasting helps companies optimize inventory management, production planning, and resource allocation.

4.Sales Projections

This helps companies set realistic sales targets and allocate resources effectively.
For example : By comparing the present and future requirement of the laptop we can increase the sales.

In present the laptop sales depend on:

1.Market Share and Sales Analysis

2.Customer Preferences

3. Performance Metrics

4. Price Point Analysis

5. Operating System Usage

6. Security and Privacy Trends

In Future laptop sales will depend on:

1.Emerging Technologies

2. Sustainability Metrics

3. Predictive Maintenance

4. AI Integration

5. Advanced Security

6. Design Trends

So from the future analysis we can increase sales of the product.

➔SEASONAL DATA ANALYSIS :

Seasonal trend analysis is a valuable technique in data analytics that helps identify recurring patterns or trends within data over specific time intervals, such as seasons, months, weeks, or even days. It can provide valuable insights for various industries and applications.

Tech Stack:

➔Frontend:

- HTML, CSS, JavaScript for building the web interface
- Framework like React or Angular for creating reactive UI components

➔Backend:

- Python with Flask framework to build the REST APIs and web application logic - Pandas, NumPy, Matplotlib, Seaborn for data manipulation, analysis and visualization
- scikit-learn for building machine learning models like forecasting sales

➔Data Storage:

- SQLite or MySQL database for storing the uploaded sales data

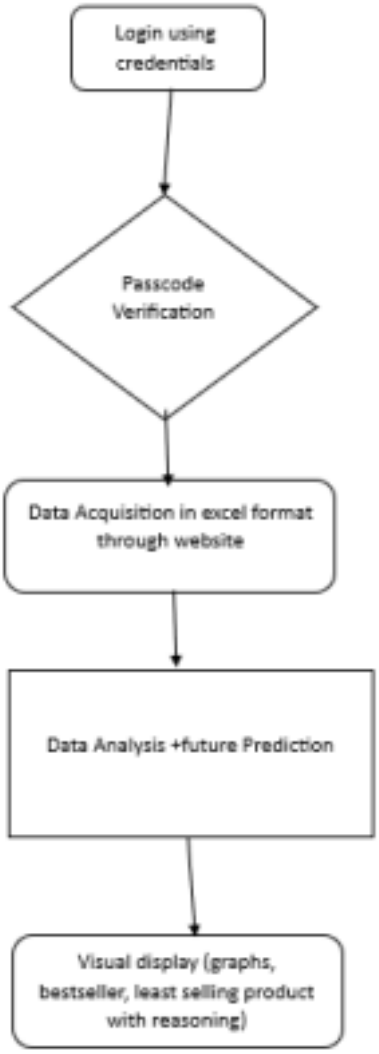
➔Version Control:

- Git & GitHub for source code management.
- Git will also be used to host the website.

Key Components:

- Frontend for file upload and result display - API endpoint to receive uploaded data - Process data and generate analytics
- Display charts and graphs based on analysis

ARCHITECTURE



Future Innovation:

1) Creating a App

In this application,Normal people without any background from data analytics will be known to the demand in the respective product.For example if the product is Gold ornaments ,the notification would be sent to the user whether the ornaments rates are going up or down on the day-to-day basis.

2)Multilingual platform

As a global language English is used but countries like Japan,china mostly use their own language to make this easier. The future technology which we develop will be multilingual.

Conclusion

Our project is really about diving deep into what IBM Cognos can do with sales data. We're all about using design thinking and coming up with cool ideas to find the hidden secrets in this data. Our goal isn't just to help with inventory and marketing, but to actually make the business successful in the long run. We think the key to making this happen is by always keeping an eye on things, being flexible, and thinking ahead.