PROJECT DESIGN PHASE - I

SOLUTION ARCHITECTURE

DATE	29 November 2023
TEAM ID	592137
PROJECT NAME	Extracting Intelligent Insights With AI-Based Systems
MAXIMUM MARKS	4 Marks

Solution Architecture:

AI-based systems are becoming increasingly popular for extracting intelligent insights from data. These systems can be used to identify patterns, trends, and anomalies that would be difficult or impossible to find with traditional methods. The benefits of using AI-based systems for extracting intelligent insights include:

Steps Involved:

1. Consulting frameworks
2. Reusable robots/ components
3. Pre - trained AI model libraries
4. Automated robot code generators
5. Data integration accelerators

- Improved decision-making: By providing insights into data, AI-based systems can help businesses make better decisions about everything from product development to customer service.
- Increased efficiency: AI-based systems can automate many of the tasks involved in extracting insights from data, which can free up employees to focus on other tasks.

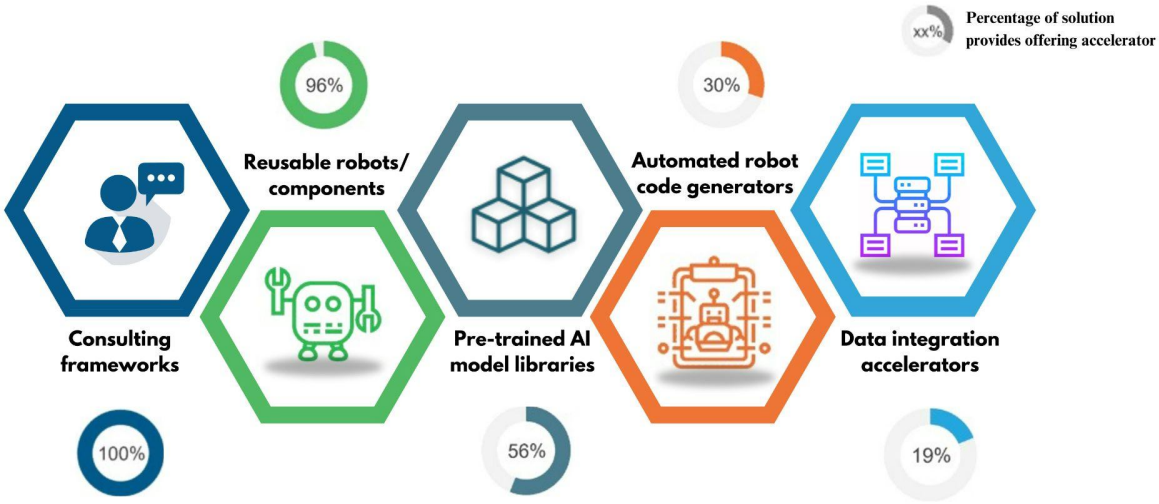
- Reduced risk: AI-based systems can help identify potential problems before they occur, which can help businesses mitigate risk.

A typical solution architecture for extracting intelligent insights with AI-based systems consists of the following components:

- Data sources: The data sources for this solution architecture include customer reviews from various sources, such as the company's website, social media, and third-party review sites.
- Data ingestion: The data from the data sources is ingested into a data lake using a data ingestion pipeline. The data pipeline cleans, transforms, and enriches the data before loading it into the data lake.
- Data storage: The data in the data lake is stored in a structured format using a data warehouse. The data warehouse provides easy access to the data for analysis and reporting.
- AI model development: A machine learning model is developed using the data in the data warehouse. The model is trained to identify sentiment, topics, and other insights from the customer reviews.
- AI model deployment: The machine learning model is deployed to a production environment using a cloud platform. The cloud platform provides a scalable and secure environment for running the model.
- Insight extraction: The AI-based system extracts insights from the customer reviews using the machine learning model. The insights include sentiment analysis, topic modeling, and other actionable information.
- Insight visualization: The insights are visualized using dashboards and reports. The dashboards and reports provide easy-to-understand visualizations of the insights.

Example - Solution Architecture Diagram

Solution provides are investing in various accelerators to speed time-to-value for clients



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