AI BASED FINANCIAL ADVISOR USING CLOUD ARCHITECTURE AND RANDOM FOREST CLASSIFICATION

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Abstract - *Financial advisor platforms are one of the blooms of the century which have made tasks like investing easier and efficient. They have also made our daily life easier by managing our expenses, savings, bills, taxes, etc. However, many of those platforms are inefficient and inaccurate due to the outdated algorithms produces and its complexity. Prince we have proposed a new system that will take care of the role of professional financial advisor using artificial intelligence and cloud architecture. Every user has their own account and the users will be shown their account details which also includes expenditure investment, savings, taxes. The system uses naïve bayer's algorithm which is the classification technique based on bayer's theorem with an assumption of independence among predictors this system also uses random forest algorithm which not only calculates the amount of investment returns it also calculates the risk factor and probability of higher returns. This makes the system for more efficient. Also, by combining a cloud-based system to the platform behind made sorting and retrieving data faster and safer which means that our data cannot be intruded into which makes it more secure full structure also the existing platforms have about 66 percentage accuracy but our platform boasts upper 72 percentage accuracy which makes the system more reliable, the system not only safe and secure but it also forced inefficient.*

Keywords— Cloud Arcthitecture, Client Micro service.

I. INTRODUCTION

Artificial Intelligence (AI) has been widely implemented over companies around the world during the past few years, ÁI has made many signs of progress which have enabled the creation of financial advisor applications, which would help the user to find the finances more accurately than a human does. Thus, it is assumed that the AI could not only replace human capital in full or in part but also enhance its performance beyond human benchmarks. This financial application fetches the user transaction data from their bank accounts and can group this based on section like loan, income, expenses and the predicted information is acknowledged to the user. The concept of cloud architecture is implemented in AI to build this financial advisor application and to achieve maximum accuracy naïve bayers algorithm is used along with random forest application. The high-growth financial services organizations/ institutes (FSI) are vital to the modern economy. Financial services such as banking, insurance, capital markets/ investment, retail and business will continue to focus on revenue growth and higher margins. These financial organizations are gravitating towards the expansion of wealth management portfolios to ensure lower risk and consistent fee-based revenue. The FSI shall be expected to lead digitization and automation initiatives. It is noted that the financial sector is lagging behind other sectors. For example, banking organizations develop new revenue streams by entering new markets and service areas.

II. LITERATURESURVEY

•Ashish Shah, Pratik Raj, Pushpam Kumar, Supriya P, Asha H V ," FinAID, A Financial Advisor Application using AI", International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-9 Issue-1, May 2020

Techniques/algorithms/Approaches used:

Artificial Intelligence

Achieved Result:

To help users to maximize their profits, this application can also take a 1% cut from the monthly budget and put it into the stocks .

Issues:

The application still needs to be trained to get results for advanced queries

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In this paper the authors Vikrant Pandey, Wee-Keong Ng, Ee-PengI. METHODOLOGY

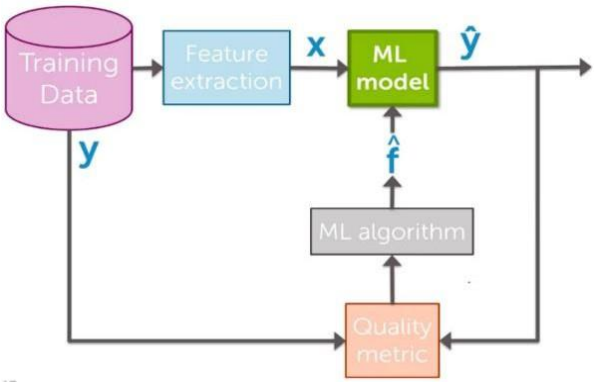

Fig. 2. Data Analyzing and processingLim has explained the MAFTS usage in financial advisor. Thihelps the user to manage their portfolio by monitoring the stock price. This Financial advisor agent interacts with other agent on behalf of the user. The investment in stocks is taken care by the financial agent advisor and thus helps the user in lot more way.FAA invest money based on the policy chosen by the user.

A. CLOUD ARCHITECTURE

Cloud architecture is how individual technologies are integrated to create clouds—IT environments that abstract, pool, and share scalable resources across a network. Cloud architecture is how all the components and capabilities necessary to build a cloud are connected in order to deliver an online platform on which applications can run.

B. WORKING OF THESYSTEM

From user we get the input data ,the received data set are stored in the system storage the it transfer to the forest area to find the another data set , this process is done through the cloud architecture and desired output is process through the Final report.

D .OUTPUT :

The web application used here gives an accuracy of86.01%.Besides accuracy of Financial advisor app (meanaccuracy=0.950 mean AUC=0.935).The user can enter the following details over the web application to get the suggestions and manage accordingly with respect to the required as depicted below in Fig. 4. Interface of web App

C. FUNCTIONALARCHITECTURE

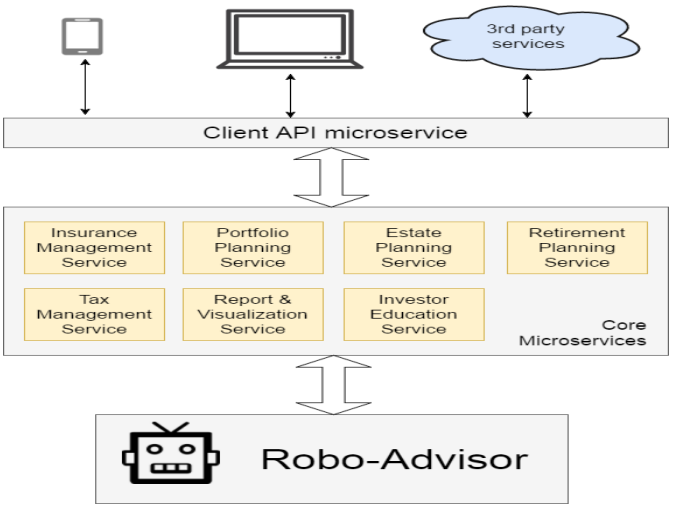

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Fig 3. CLIENT MICRO SERVICE

III. CONCLUSION AND FUTURE WORK

AI enables the identification of adaptive trends across large data volumes and modern statistical methods to address a narrowly defined and permanent problem set. The development of investment services in the future is important so, this financial advisor application can support the user by managing their daily life.

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