INTRODUCTION:

OVERVIEW

- An engaging exchange will not only improve the customer experience but will deliver the data to help you increase your bottom line. To achieve this, the user interface needs to be as human-like and conversational as possible.
- By ensuring a level of control within the application, enterprises can not only avoid awkward mistakes but provide a ‘safety net’ for managing unexpected exceptions during a conversation, always ensuring a smooth customer experience
- Ensure that conversational Chat-Bot can be easily ported to existing and future devices.
- The conventional hiring process consumes excessive time which isn’t profitable for either Recruiter or Applicant.

PURPOSE

- To develop a recruitment strategy that meets business goals, takes into consideration competitor analysis and employee satisfaction rates.
- Managing this workload effectively is a hard task to do, that’s why many companies turned to Artificial Intelligence for extra help.

LITERATURE SURVEY

EXISTING PROBLEM

- The conventional hiring process consumes excessive time which isn’t profitable for either Recruiter or Applicant. Integrating AI into the first stages of the hiring process has proven to increase recruiter productivity by 3.7 times.

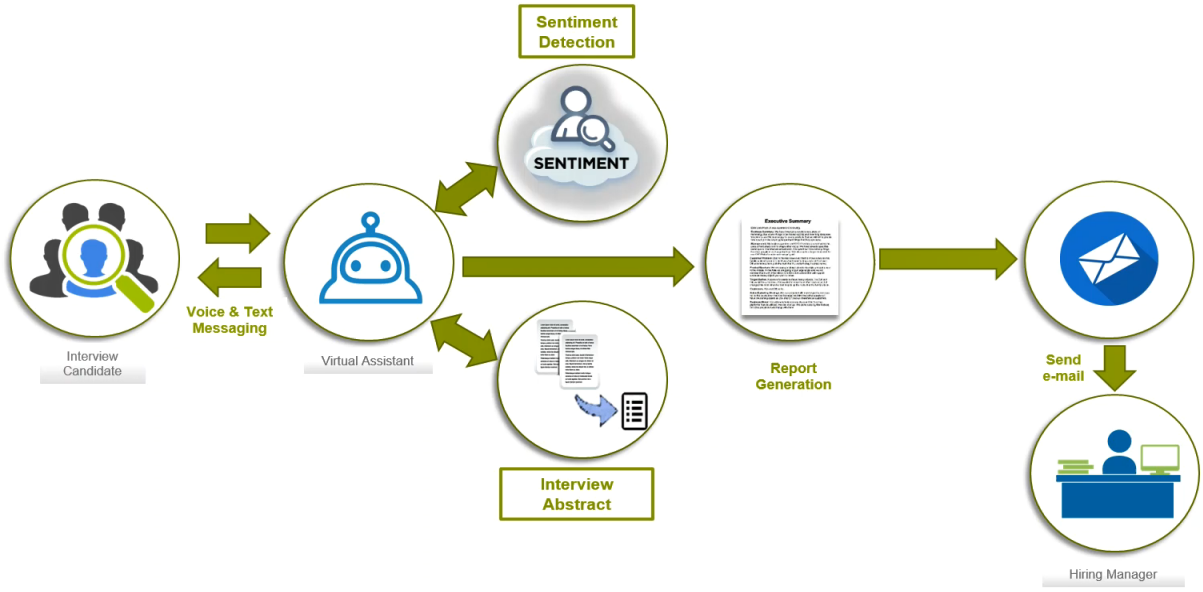
PROPOSED SOLUTION

- AI based chat-bot which is capable enough to segregate and recruit the applicant for the desired job based on skills, personality, experience, etc.
- Generate a link between the applicant and recruiter
- Gathering vacancies from companies and accordingly providing information about them to the applicants Analyzing the vacancies and accordingly predicting the demand for skills and professions
- Reducing the workload of recruiters by providing them perfect applicant for the desired job

THEORETICAL ANALYSIS

BLOCK DIAGRAM

- The virtual assistant presents the candidate with a web form for capturing name and contact information.
- The virtual assistant starts the chat, welcomes candidates to the interview, and proceeds with interview questions via voice and text.
- The responses received from the candidate are analyzed to detect the predominant feeling for every response and to generate a report for inclusion within the final interview report.
- The responses are also used to build a summary of the interview to be included in the final report.
- Upon finishing the interview, the virtual assistant generates the report and sends it via email to the human hiring manager (HR).



SOFTWARE DESIGNING:

Concerning the tech stack used for chat bot development:

- **Python** – a programming language used to build an architecture of
- **Pandas** – a software library is written for the Python programming language for data

manipulation and anal

- **SpaCy / nltk** – open-source software libraries for advanced natural language processes
- **Web Deployment** – to connect chat bot to your messengers or websites

APPLICABILITY OF SOLUTION:

1) Usability:

● Analyzing The Vacancies And Accordingly Predicting The Demand For Skills And Professions

● Reducing The Workload Of Recruiters By Providing Them Perfect Applicant For The Desired Job

● Your Talent Acquisition team members may believe they're conscious of any unintended bias or not, but ultimately, people are flawed in their ability to be completely unbiased when they choose new employees.

2) Scalability:

● AI can assess candidate quality better than humans can.

● By adding a predictive-analytics component to your hiring process, you'll see how AI, in many instances, can assess just how good a candidate is, and can do this better than your current recruiters can.

3) Comfortable of Applicant:

● For a candidate, having a conversation with a chat bot can be more productive and comfortable than a dialogue with another human being.

● The chat bot is able to collect and provide data in a way that a resume cannot, and it can use data from previous chats to adapt its responses to the applicant, with no conscious or unconscious bias at play.

4) Economic Stability:

● According to Markets and Markets, the global conversational AI market size is expected to grow from USD 4.2 billion in 2019 to USD 15.7 billion by 2024, at a Compound Annual Growth Rate (CAGR) of 30.2%.

● Research and Markets stated that the Chatbots Market was worth USD 1.2 billion in 2018 and is projected to reach USD 7.5 billion by 2024 registering a CAGR of 34.75% over the period.

5) Environmental Sustainability:

● Today, chat bot solutions are finding use primarily in customer service. However, they are starting to also infiltrate the world of social activism.

● By creating personalized, conversational experiences with individuals, chatbots are bringing causes closer to home.
● They are therefore creating more impactful experiences and enhancing the effectiveness of social movements and initiatives.

CONCLUSION:

- We can eliminate the requirement of any manpower during online interaction and are hence seen as a big advantage by companies receiving multiple queries at once.
- This also presents companies with the opportunity to save on costs while aligning chat bots with their goals and hence presenting customers with a particular type of interaction leading to conversion.
- Applicant can apply at any time from any place according to his comfort this will eliminate the general problems faced by applicant.
- It will save precious time of company by sorting out the applicants according to companies criteria.

BIBILIOGRAPHY:

> Python Course: A Hands-On, Project-Based Introduction to Programming (2nd Edition)
> Natural Language Processing with Python by Steven Bird, Ewan Klein and Edward Loper.
> Codecademy.com
> Google
> geeksforgeeks.com

GIT REPOSITORIES GUIDELINES :

- Run script.py It will run chatbot in terminal and answer the asked questions for personality insights.
- Once all responses are saved in users_response.csv, you can access responses from there.
- According to requiters ideal answers, add answers data to ideal_data.py
- After adding answers data, run rank.py.
- It will rank the best responses from csv file.
- Then accordingly candidates can be sorted.