AI RECRUITER – SHORTLIST A SUITABLE CANDIDATE FOR SPECIFIC JOB ROLE

1. INTRODUCTION

1.1 OVERVIEW:

It is all about selecting a candidate for a particular candidate for a particular job. First we need to know the criteria for a particular job role and select the candidate . We need to take check the criteria details after the recruitment Process of 2 rounds since an interview will be conducted after Online written test round and technical round. We need to conduct last round. In this we will start conversation with the candidate through chat bot. By asking some Personality questions and evaluate based on his answers and way of approaching his manner and solutions for questions.

1.2 PURPOSE:

Very useful for business Since there is no need to candidate to come and recruiters to organize panels and interview candidate. as all this process is automated it will be so useful. Time for interviewing and hiring candidate will be less when compared to manual process

2. LITERATURE SURVEY

2.1 EXISTING PROBLEM:

At present any company in order to carry the recruitment process A group of people need to carry out the selection of candidates. It is time taking and complex. In order to avoid this problems chat bot   is much useful and efficient way of solving.

2.2 PROPOSED SOLUTION:

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 In this first we will divide in to modules one module we will build basic chatbot and in second module we will build questions and fed in to chat bot . In third module we will develop our unique point that is Skill test. In last module we will see overall chatbot and our criteria is met.

3.THEORITICAL ANALYSIS

3.1BLOCK DIAGRAM:
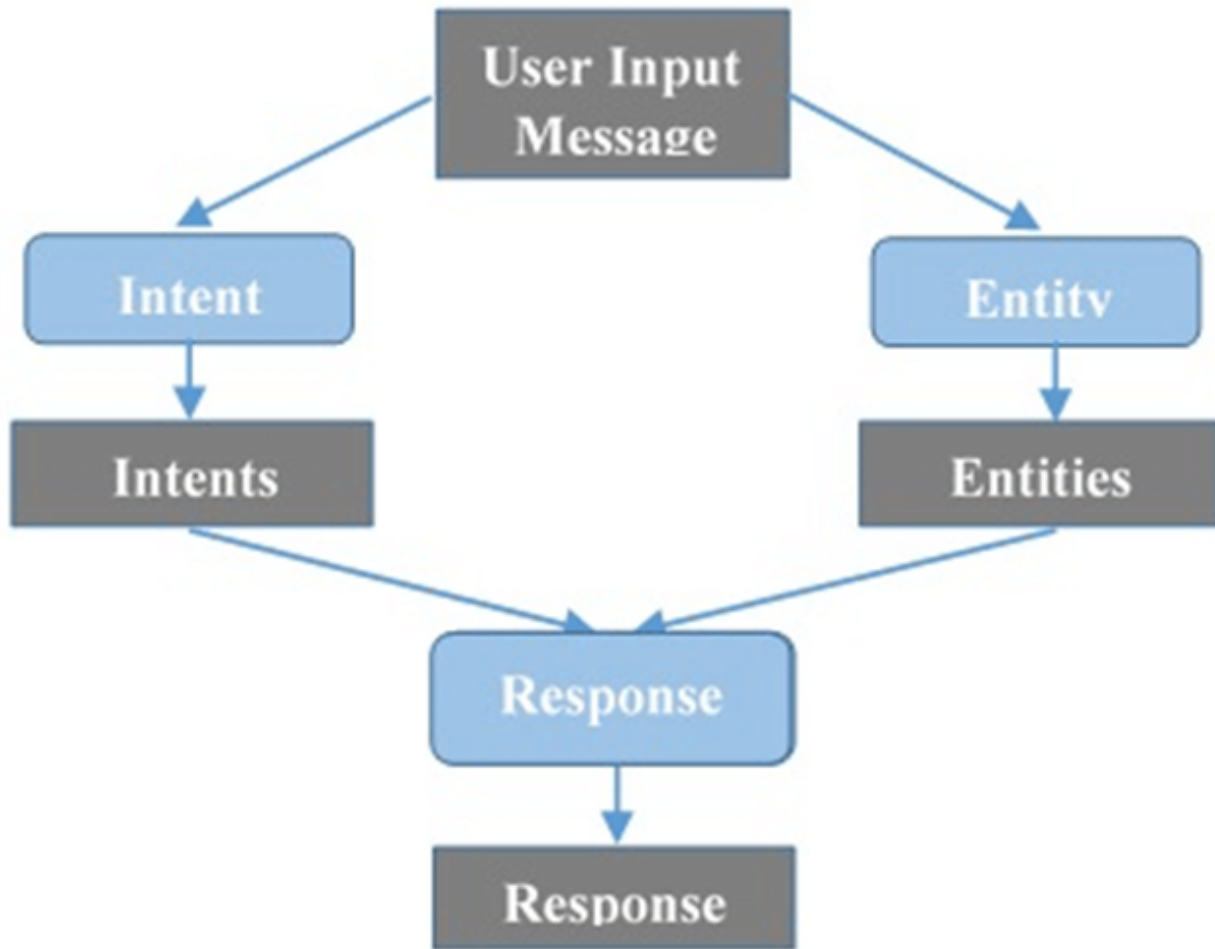
3.2 HARDWARE /SOFTWARE DESIGNING:

In our project we have used   IBM cloud as a software to implement the chatbot. IBM cloud has a vast amount of services that provides platform & Infrastructure and various software to clients.

In IBM cloud Watson assistant is a platform

Which provides a way to create chat bot. For Interface development we have used Node -Red Flow editor.By using these two we have efficiently developed the Chatbot and it is very easy working with these services of IBM cloud.

4. EXPERIMENTAL INVESTIGATION

In this first we will divide in to modules one module we will build basic chatbot and in second module we will build questions and fed in to chat bot. In third module we will develop our unique point that is Skill test. In last module we will see overall chatbot and our criteria is met.

We have investigated various lectures and several other links for our project. IBM cognitive classes are the best Way to learn various IBM services.
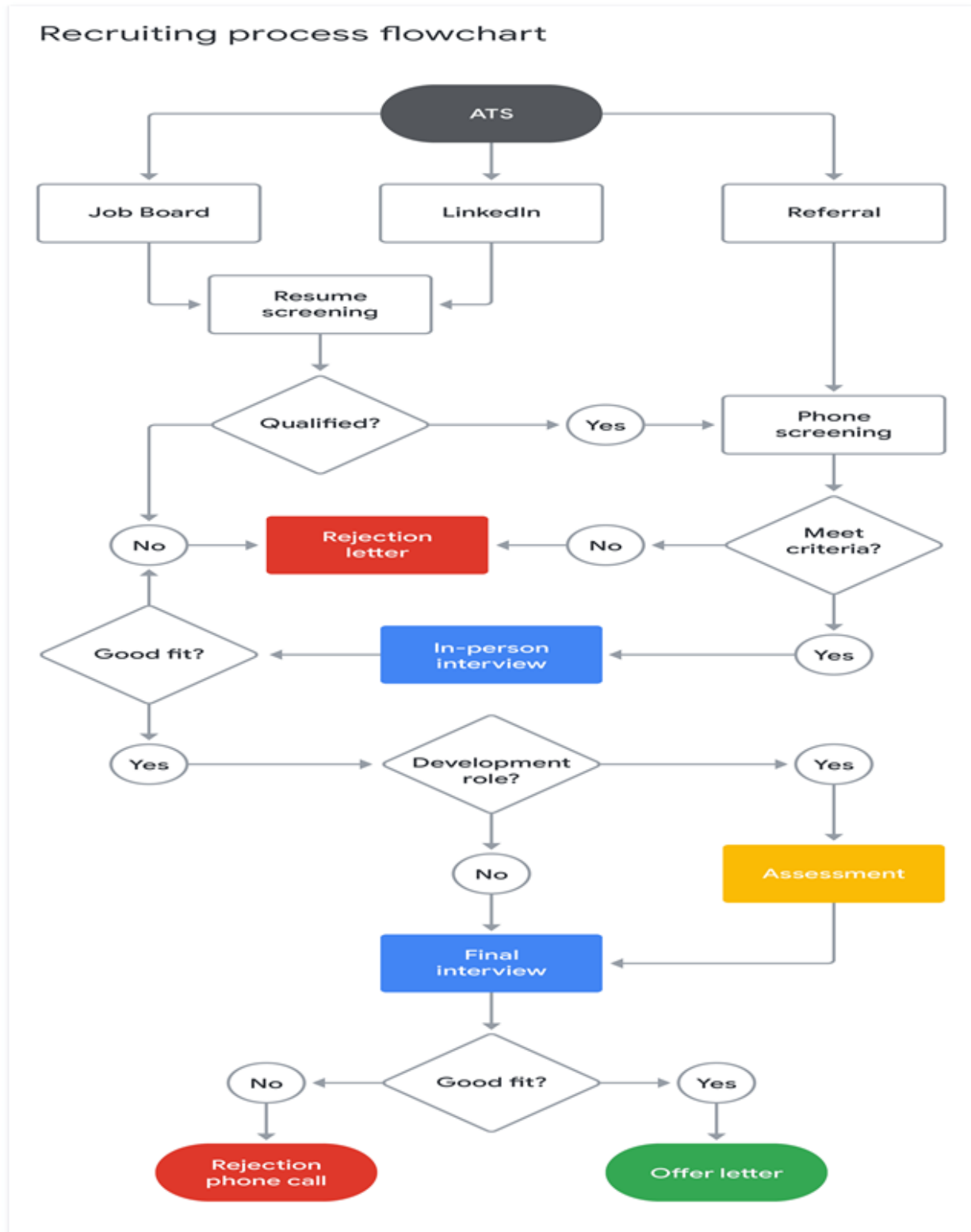
In our project first we have gathered requirements for a Recruitment chat bot. We have prepared Requirements Specifications. Then we started coding part. First we

have developed greetings part and we checked whether it is working or not.

In the next module we have created intents entities dialogues for feeding chat bot. We have fed the entire questions.   And then we checked whether it is working

Properly or not.

In the next module we developed the interface for Developing the chatbot.So we started with Node-Red Flow editor.We have used nodes for creating and we have developed audio sound also.Finally, Our chat bot is working   according to

requirements .In this way we carried our experimental Investigations for developing chat bot.

5. FLOW CHART

Requirement specifications Task-1

Recruiting process flowchart

ATS

Job Board   LinkedIn   Referral

Resume screening

Qualified? — Yes → Phone screening

No → Rejection letter ← No ← Meet criteria?

Good fit? ← In-person interview ← Yes

Yes → Development role? → Yes → Assessment

No

Final interview

No ← Good fit? → Yes

Rejection phone call   Offer letter

EXPLANATION:

1. Sending the communication message to HR with request for initiating the recruitment process

2. Chatbot-HR directs the hiring team to start the recruitment process

3. Logging into the employment website and contacting different recruiters

4. Sourcing, identifying, and collecting the resumes of the candidates

5. Receiving relevant resumes

6. Shortlisting the resume

7. Sending the shortlisted resumes to the department manager

8. Schedule interview dates

9. Calling the candidates for interview

10. Interviewers complete the feedback form and the feedback is shared with Chatbot-HR

11. This process repeats for many candidates till the best candidates are finalized.

12. The HR team negotiates the package and compensation .

13. Final confirmation and agreements

14. Send offer letter

15. Offer accepted.

Requirement specifications Task-1

6. RESULT
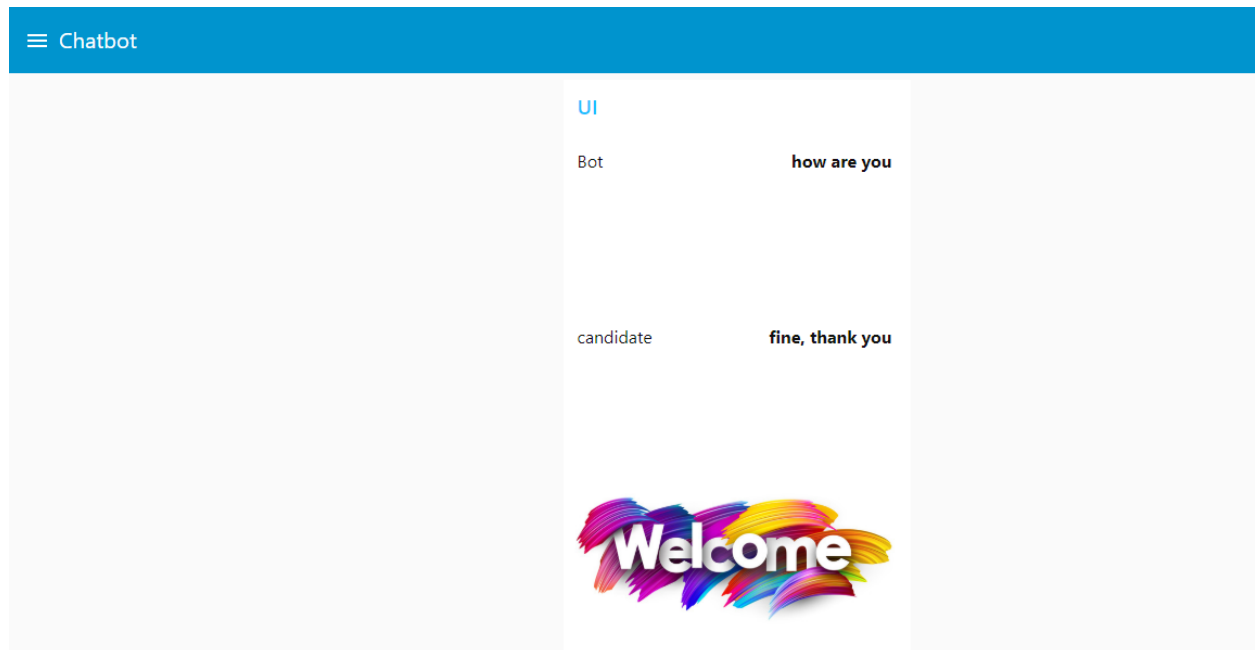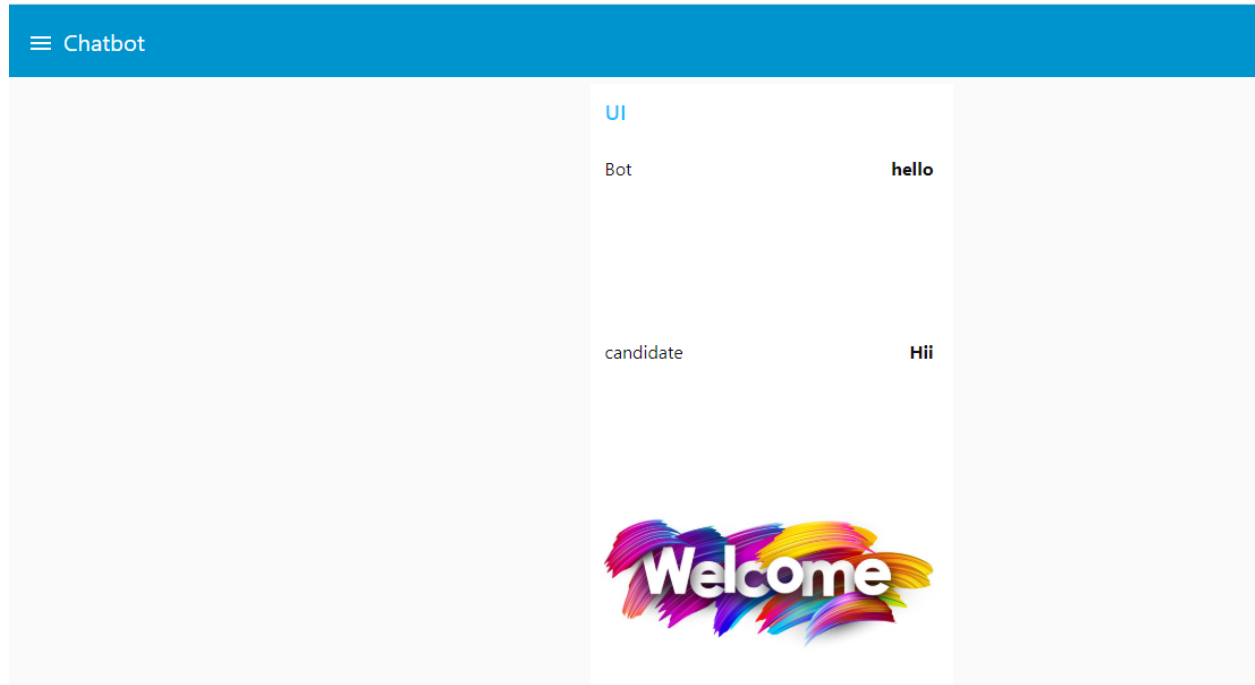
7. ADVANTAGES AND DISADVANTAGES

ADVANTAGES:

1.Screen Candidates and Assess their Potential:

Recruitment Chatbots are like an HR assistant that provides helps in the initial phase of recruitment. Most of the job is conversations and interaction with candidates entailing preliminary recruitment functions.

These AI chatbots help the recruiters to depend on its NLP capabilities to commendably perform the initial recruitment functions and then shortlist the right candidates. The AI chatbots gain knowledge of the screening through thousands of use cases and increase capabilities that can bring breakthrough results.

According to [a survey](#) by Allegis, around 58 percent of candidates felt comfortable while recruitment with AI Chatbots.

Chatbots ask several questions to the candidates like interest areas, qualification, and experience. Once this conversation is made, the bots match the candidate's skills with the required position.

2. Help Quickly Schedule Interviews:

The chatbots are intelligent enough to schedule the interviews with potential candidates using their calendars. The Bots ease the task of the recruiter to plan interviews on agreed date and time. HR recruiters can save a lot of effort on this simple yet time-consuming task of co-ordination.

3.Promptly Answer User Queries and Provide Instant Solutions:

AI recruitment chatbots have gained enough knowledge to handle queries and answering relevantly. The smart AI bots ease the task of the recruiter to revert

to questions put by the potential candidates continuously. The new hires and candidates want to know something about the position and company. AI chatbots can give the information readily. Data like Salary, incentives, job requirement, etc. can be shared via chatbots easily, they can answer queries instantly and with ease.

4.Help Manage Employee Referrals Effectively:

Using AI, you can automate the referral process wherein the chatbots can screen the credentials instantly to check if referrals match the roles and responsibility of the position.

Chatbots can further communicate with the employee seeking more details. Also, the AI chatbots can provide the hiring manager with a review of candidates and help them decide which one to hire.

5.Keep Talent Pool Engrossed and Engaged with Less Effort:

Your talent pool needs to be engaged and diverse. AI chatbots help you interact with the pool and keep them updated with the latest happening within the organization.The bots are evolving with time. The newest processes help manage the talent pool, which is the backbone of the business. The real-time, intelligent systems and virtual assistants engross the candidates in the talent pool. AI bots can make your regular interaction more consistent.

 6.Enhance Candidate Experience:
The role of chatbots in recruitment is crucial. They enhance the candidate

experience by engrossing them with just-in-time, instant communication. The way a candidate feels during an organizations recruitment cycle makes a huge difference.

A candidate may drop the potential offer just in case they have a bad experience during the recruitment process. The new age recruitment strategy needs to be a candidate- focused.

The response to queries should be fast and detailed. The applicants and the hirers both can benefit from the instantaneous and prompt responsiveness of the chatbots. Overall, the user experience is enhanced by using recruitment chatbots.

DISADVANTAGES:

1.Chatbots have the potential to create a negative impression:

Chatbots may create a frustrating customer experience if they don't know how to respond to what a job seeker is saying.A negative experience can be particularly detrimental if the chatbot is your candidates' first point of contact. It can impact how candidates view your company and brand, and may make them disinterested in continuing with the hiring process.

2.Chatbots can be a drain on your time and money:

While chatbots might pay off in the long run, they can be a costly upfront investment in time and money. Hours of work and testing are needed to set up the technology and incorporate it into your hiring workflow.For instance, someone on your team will need to regularly reviewinteractions, find ways to improve on what your chatbot can do and gatherfeedback to keep your chatbot healthy. Otherwise, you might start seeing [symptoms of bot rot](#).

3. Chatbots can't evaluate human qualities:

Unlike human recruiters, chatbots can't accurately gauge things like personality traits, culture match and work ethic—all factors that are important when assessing whether a candidate is the right match for the company and role.

This means, for example, that candidates who are a good culture match might get overlooked because their years of experience doesn't match up exactly with the job

listing. Or the chatbot might include candidates who don't uphold the company's core values in its shortlist of top candidates. All in all, chatbots aren't smart enough to automate the entire screening process, leaving recruiters with important work to do.

8. APPLICATIONS

Content Delivery:

Media Publishers have realized that chatbots are a powerful way to engage with their audiences and monitor engagement to gain valuable insights on reader interests. Chat with the CNN and Wall Street Journal Chatbots on Facebook Messenger and receive the latest news directly in Messenger, without having to visit their websites.

Order Food:

Various fast food giants like KFC and Pizza Hut have invested in Chatbots that enable customers to place their orders through conversations. Taco Bell went a step further to improve the conversational experience by giving their Chatbot named TacoBot some personality. It cracks jokes, uses emojis, answers trivia questions, and will even add a cup of water to an order if the customer mentions being hungover.

Book Flights:

Icelandair's chatbot gives their customers the ability to search for and book flights in a text-based conversational manner. Instead of drop-down menus, customers enter the information themselves. These features give customers more control over how the flight is booked and it also keeps the entire conversation in one thread so that the purchase information can be reviewed and called up with ease.

Companionship:

Russian technology company Endurance developed its [companion chatbot](#) for Senior People and Patients with Alzheimer's Disease. The primary function of the

chatbot is to be a virtual companion – To speak with senior people on general topics like the weather, nature, hobbies, movies, music, news, etc. The chatbot asks questions, reacts to the answers, is able to speak on various topics, and share interesting news

Market Research:

The way market researchers get in touch with respondents is changing as many respondents may prefer to be contacted on WhatsApp or the Facebook messenger. Instead of having a dedicated survey app, many research firms are developing Chatbots to have personalized, engaging conversational surveys with respondents to improve the experience and increase completion rates.

Transportation:

Uber in partnership with Facebook has enabled users to sign up for Uber and request a ride, without having to leave Messenger or download the Uber app. Ride status updates and ride receipts are delivered to a private conversation between the customers and Uber on Messenger, making it easy to track Uber rides and payment history.

Health Care:

Chatbots have also made their way into health care by easing the burden on medical professionals by facilitating faster medical diagnosis, answering health-related questions, booking appointments and lots more. A Chatbot like Super Izzy can track menstrual cycles, dates and fertile windows. The bot also asks menstruation related questions and learns to give information about menstrual health and sexual issues.

Another interesting Chatbot in health care is named Florence. This bot is more like a virtual nurse and has her office on Facebook Messenger. Florence can remind patients to take their pills, all they need to do is write the name of the medicine in chat, the number of times a day they must take it and at what time. Florence sends a message in chat every time the patient must take their meds.

E- Commerce:

The e-commerce industry is also improving shopping experience with Chatbots. Customers can now search and shop more conveniently with the help of chatbots. eBay has invested in Chatbot technology with their ShopBot, a virtual shopping

assistant that helps customers find the items they want at the desired price range.

Customers only need to type in details of what they are looking (e.g. Telescopes under $150), ShopBot will ask you all the relevant questions to find the best match. This a great example of how Chatbots can improve the shopping experience beyond what regular e-commerce sites can offer.

Hospitality:

Chatbots have been put to use in the hospitality industry in various ways. Radisson Blu Edwardian hotels use a virtual host called Edward to help guests with a variety of things from; online check-in, to handling customer inquiries, letting them know their rooms are ready and more.

Edward has his own personality, can automatically escalate complaints should a request be not followed up. The Chatbot is so good at his job that most guests don't know they are dealing with a ChatBot, and praised him with glowing reviews on TripAdvisor. The Edwardian Hotels team also leverages data from Edward to improve their services as they monitor common guest requests and trends.

9. CONCLUSION

Finally we have done successfully in developing an AI based Recruitment chatbot. This chatbot is very helpful in recruiting a candidate in hiring process.

The chatbot is developed by using Watson-assistant and Node-Red Flow editor .

10.FUTURE SCOPE

The scope of the project is further be enhanced by adding the entities according to requirements of the customer.

HR & recruiters can harness the full potential of AI.chatbots gaining a huge popularity among the recruiters. The intelligent chatbots which interact with the

applicants and compiles relevant data can make the future recruitment process 30% faster while cutting back on the overall recruiting cost by half.It will be very useful for government sector also.

11. BIBLIOGRAPHY

1.https://marutitech.com/14-powerful-chatbot-platforms/
2.
https://chatbotsmagazine.com/how-to-develop-a-chatbot-from-scratch-62bed1adab8c
3.https://ideal.com/recruitment-chatbot/