



ALEX BOT - AI assisted voice conversational platform

TEAM 109

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MAHARASHTRA

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Project Details:

“Alex Bot is an AI assisted voice conversational platform, powered by different Machine learning algorithm like BERT and several API services, to help students and young professionals across the world develop effective communication skills”



Problem Statement:

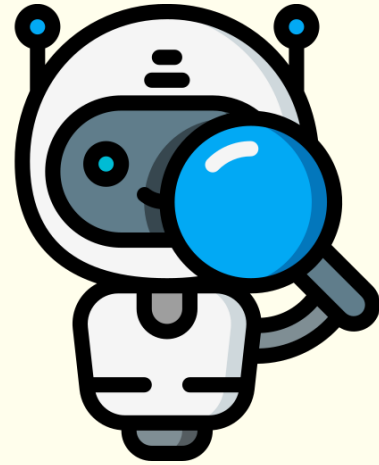
Indian education is acknowledged worldwide for its apt curriculum design and quality of content, however English is not a native language in our nation, and students face difficulties while trying to communicate their thoughts clearly. This is where we see a need for students and young professionals.

This project is a combination of 2 massively emerging Tech ideas: Voice agent and e-learning platform. With this power our bot can assist to learn concepts and master the knack using different built in productivity modules. Alex Bot, is an assistive voice communication agent designed on the principles of core AI and some Machine algorithms with a cognitive approach towards mimicking student conversation.



Need of Project:

We are in a phase where AI is a major turning point in every field that will change the way we all work. Conventional thinking and traditional operating models will not be able to capture the opportunities that arise from this paradigm shift. Therefore as a young student researcher I feel we need to take initiative to transform ourselves through technology. This project is an effort to deliver and add value towards the goal of sustainable development in providing quality education. Your suggestions and viewpoints hold immense value to this work, feel free to connect and contribute towards a bright future



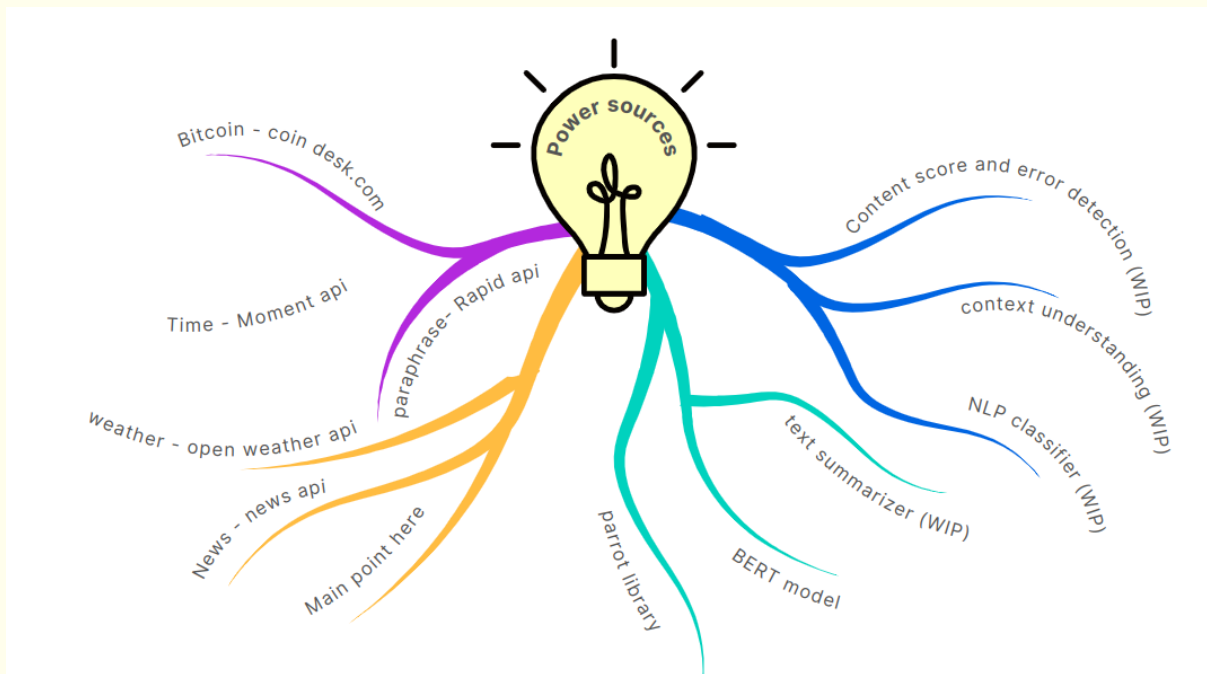
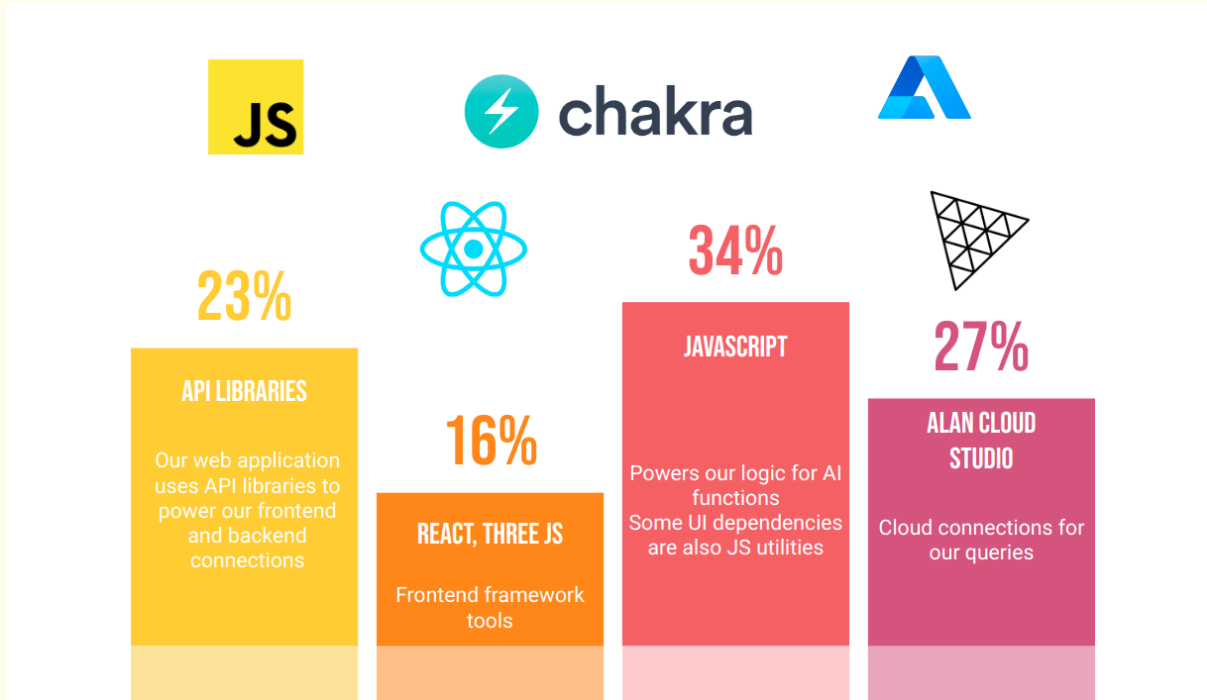
~ Zoya Jamadar

Proposed Solution:



Our aim has been towards building a knowledge based system. Knowledge however has certain characteristics like being voluminous, hard to categorise, and constantly changing. With AI we capture represented knowledge with generalisation that can be understood and narrowed down to a range of possibilities. The goal of our Intelligent agent is to acquire and apply the knowledge in an autonomous way. Magnitude of this intelligence is defined over the complexity of function type towards which the agent transitions. It could be a Goal based state, Model Based or Utility based action.

Technology Used:



Project Outcomes:

1. Understanding how AI Agents are designed
2. API Handling
3. Application Design

Modelling:

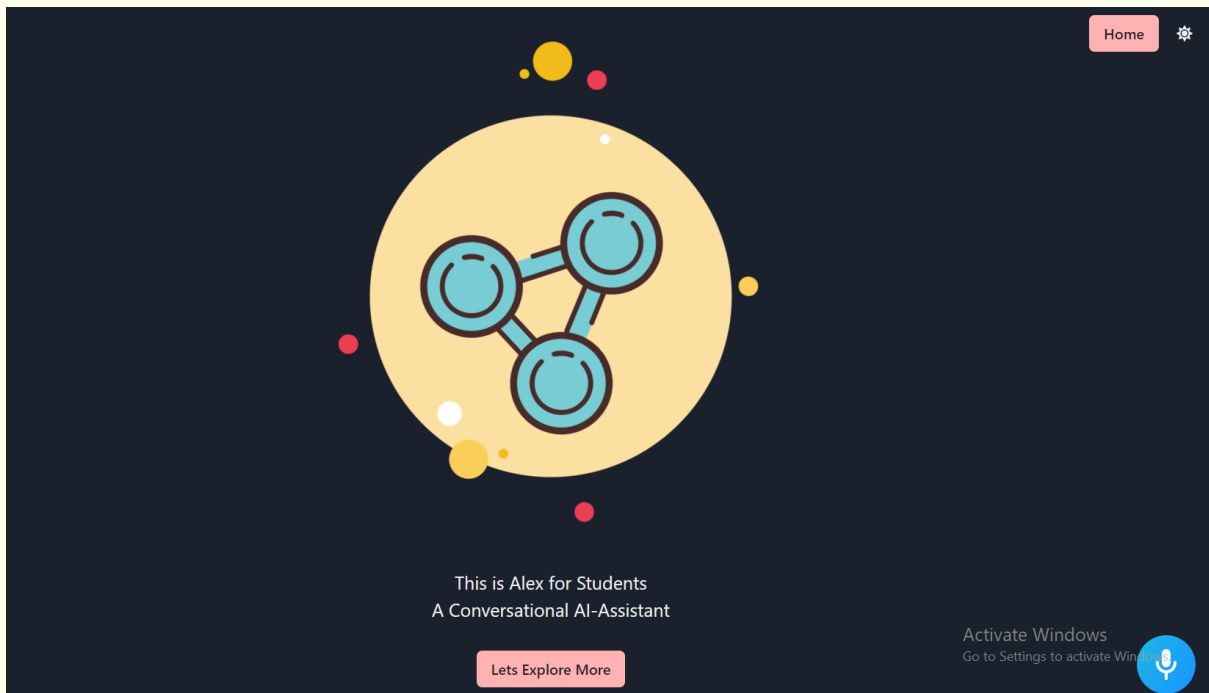
Let's summarize #Algorithm Design

```

follow('${OPERATOR
*|+|-|/|plus|minus|over|divided|divide|times) ${NUMBER}',
p => {
  const operator = operatorMap[p.OPERATOR.value];
  if (!operator) {
    p.play(`(Sorry|) I can't do ${p.OPERATOR}
(yet|)`);
    return;
  }
  const prevState = p.state.result;
  p.state.result = roundToLimit(operator(prevState,
p.NUMBER.number));
  p.play(
`${prevState} ${p.OPERATOR} ${p.NUMBER}
(is|equals to) ${p.state.result}`,
`it's|) ${p.state.result}`,
);
}

```

Results:





_VOIS



Future scope for project enhancement:

- 1. Implementing Advanced NLP based Model**
- 2. Cloud Based Models**