

GenAI Hackathon

Team 32



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Problem Statement

How can we connect marginalized workers with job opportunities in their localities based on their skills and experience, even without formal qualifications?

(Problem statement 2.1)

Solution

1. Linguistic integration

- a. We planned of using Bhashini API, to convert speech to text of hindi, telugu, kannada and marathi.
- b. The user can respond to it, and it will access the accuracy of the answer and define how well-versed they are in the language.
- c. This includes reading(out to the recorder) and speaking(to the Bhashini GenAI speech-to-text recognizer)
- d. We couldn't get the Bhashini API on time, hence we have no output.

2. Numerical understanding

- a. Several math questions, will be structured as a word problem in the user's preferred language, and the score of their correct answers will estimate their aptitude.
- b. OpenAI's GPTneo-125m will be used to do so, the questions will be randomly generated from prompts, so the answer is authentic.

Solution

3. Disability measure and type

- a. A blurred image will be generated using python's pillow, which when the user inputs the correct text, it will access their sight and visibility.
- b. For hearing text, a passage will be read out loud, by GenAI, (hugging face's `quadranttechnologies--qhub-blip-image-captioning-finetuned`) and a series of questions need to be answered to check their comprehensive ability.

4. Our model will generate a response for the most suitable job profession for the individual using all the above parameters

Conclusion

- Our model is an innovative solution to SDG-8(decent work and economic growth).
- The assessment being dynamic helps adapt questions based on user response.
- Since we convert text to regional languages, our solution is accessible and targets a wider demographic.
- Knowing if the user is experienced in a trade helps suggest more suitable employment paths for them.