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Project Idea:-1
SJSU application process helper using amazon alexa.

Aim :-
To build a bot that will clarify all the queries asked by the students regarding SJSU admission application process.

Implementation:-
Amazon alexa is an intelligent personal assistant developed by amazon Lab-126. It is capable of voice interaction, music playback, making to-do lists, setting alarms, streaming podcasts, playing audiobooks, and providing weather, traffic, and other real-time information, such as news.

In this project, we will try to build a chatbot that will answer all the queries asked by students regarding SJSU application process. We will create a database for the questions asked by the students and thus the bot (alexa) will answer those questions according to its intelligence(the information with which it is trained) using its voice interaction abilities.

The alexa will be configured/programmed using Amazon LEX services which provides advanced deep learning functionalities such as Natural Language Understanding(NLU) and Automatic Speech Recognition(ASR) for conversion of speech to text.

 Tools to be used :- Python, MySQL, Amazon LEX, Amazon Alexa

Project idea :-2
Lucy helps keep our seniors happy and engaged
#1 problems our seniors (over 80) face today is loneliness and isolation. According to the U.S. Census Bureau 11 million, or 28% of people aged 65 and older, lived alone at the time of the census. As people get older, their likelihood of living alone only increases. Additionally, more and more older adults do not have children, reports the AARP, and that means fewer family members to provide company and care as those adults become seniors.
1. Senior isolation increases the risk of mortality.
2. Feelings of loneliness can negatively affect both physical and mental health.
3. Perceived loneliness contributes to cognitive decline and risk of dementia.
4. Social isolation makes seniors more vulnerable to elder abuse.
5. Loneliness in seniors is a major risk factor for depression.

Lucy is an effort to use technology and a group of student volunteers to solve the problem of social isolation of seniors. Lucy is a skill developed for Amazon Alexa device echo dot which sits in senior's room. A group of student volunteers write personal emails to our seniors . Lucy reads those emails from a server to seniors as they come or at certain time. If seniors can share stories and Lucy collects them that would be great

Project idea :-3

Heart Disease prediction using Big Data Analytics

Aim :-

To build a prediction model for old age heart patients by analysing their medical reports and history using Big Data Tools.

Implementation:-

Due to fast paced life, people are restless and prone to continuous stress. Also they have developed unhealthy eating habits of consuming junk and processed food. These collectively deteriorates their heart by disturbing electrolyte and blood pressure while they remain unaware. One day they suddenly face severe pain and uneven heartbeat which progressed to permanent heart diseases including heart attack. Many people are not even able to interpret the medical report correctly thereby worsening the situation.

#We here would put effort to build the Heart Disease prediction using Big Data Analytics which will take the medical reports and history as input and would predict the likelihood of any forthcoming complications or heart problems beforehand based in trained datasets. This model would also provide graphical representation of patients current health scenario based on various medical records. This would enable patient to easily visualise his situation and would enable to take corrective action with more conviction.

 Tools to be used :- Hadoop, NoSQL, Hive, NumPy, Panda, Scikit-Learn, Tensorflow