Mobile_Lesson6: Speech to Text and Text to Speech

Please do not forget to submit your feedback after the class. This feedback helps a lot in increasing the effectiveness of the course. Use the related Canvas survey to submit your ICP # and feedback

Lesson Overview:
In this lesson, we are going to discuss speech to text and text to speech applications

Use Case Description:
Text to speech and speech Recognizer

Programming elements:
Speech to Text and Text to Speech

Source Code:
https://umkc.box.com/s/xuh2lhpax7hit4j4nbj0glihas9p8iiw

In Class Programming (ICP):
Create a **Medical Assistant** Application in the following steps.

1. Use the layout given in the second use case speech to text.
2. As soon as the app opens, it should say hello
3. Then the user clicks on the mic button to say hello
4. Once the user said hello, the app should speak, "what is your name?"
5. Then the user clicks on the mic button to say, "My name is" +<your name>
6. Extract the name of the user and then save it as editor level.

Code snippet:

```
private SharedPreferences preferences;
private SharedPreferences.Editor editor;
preferences = getSharedPreferences(PREFS,0);
editor = preferences.edit();
editor.putString(NAME,<extracted name>).apply();//private static final String
NAME = "name";
```

7. Also, show the name on the screen
8. When the user asks the following questions, appropriate answers should be given:

Implement any three of these:

Question	Answer
I am not feeling well. What should I do?	I can understand. Please tell your symptoms in short.
Thank you, my Medical Assistant	Thank you too + <user name>+ Take care
What time is it?	The time is +<current time>
What medicines should I take?	I think you have a fever. Please take this medicine.

Hint: (Java code to get time)

```
SimpleDateFormat sdfDate = new SimpleDateFormat("HH:mm");//dd/MM/yyyy
Date now = new Date();
```

```
String[] strDate = sdfDate.format(now).split(":");
if(strDate[1].contains("00"))
    strDate[1] = "o'clock";
system.out.println("The time is " + sdfDate.format(now));
```

ICP Submission Guidelines

1. ICP submission is an individual contribution
2. Submit your source code and documentation to GitHub and represent the work through the wiki page accurately (submit your screenshots as well. The screenshot should have both the code and the output)
3. Comment your code appropriately
4. Video submission (3 to 5 min video showing the demo of the ICP, with brief voiceover on the code explanation)
5. Submission after the due date is considered as a late submission. (Check the 'Late Submission Policy on Assignments' in the syllabus)
6. Use the related Canvas survey to submit your ICP # and feedback

ICP Rubric Details

You can find ICP Rubric Details in both the Syllabus and Canvas ICP assignment.

Criteria	Novice	Competent	Proficient
Wiki page (25)	Basic wiki page. (>=0 to <=5)	Wiki page with the required details. (>5 to <=15)	Wiki page with all details and making it easy to follow and understand. Visually looking good. (>15 to <=25)
Video (25)	Basic video. (>=0 to <=5)	Video with the required details. (>5 to <=15)	Video with all details and making it easy to follow and understand. Annotated with the subtitles. (>15 to <=25)
Completeness of given assignment (25)	It is partially solved. (>=0 to <=5)	Completely solved. (>5 to <=15)	It is solved efficiently. (>15 to <=25)
Code Quality (It is relative) (10)	Refer to the best coding practices page. (>=0 to <=5)	Refer to the best coding practices page. (>5 to <=8)	Refer to the best coding practices page. (>8 to <=10)
Commenting the code (10)	Not useful comments. (>=0 to <=5)	Slightly appropriate comments. (>5 to <=8)	Appropriate comments. (>8 to <=10)

Time of submission	Submission after the due date. Check the 'Late Submission Policy on Assignments' section in the syllabus	Submission on the deadline. No score will deduct from the obtained score.	Submission before the deadline. No score will deduct from the obtained score.
Submission (including feedback) (5)	Submission with partial details. (>=0 to <=3)	Submission with the essential details. (>3 to <=4)	Submission with all the details. (>4 to <=5)
Total	**Minimum = 0**		**Maximum = 100**

Note: Cheating, plagiarism, disruptive behavior, and other forms of unacceptable conduct are subject to strong sanctions under university policy. See detailed description of university policy at the following URL: https://catalog.umkc.edu/special-notices/academic-honesty/