**Experiment-No.11**

**Objective:** Write a program to convert text to speech using NLP tool

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| **Scheduled Date:** | **Compiled Date:** | **Submitted Date:** |
| 11 Sep 2023 | 11 Sep 2023 | 11- Sep 2023 |

**Description of Text-to-Speech Conversion:**

Text-to-speech (TTS) is a technology that converts written text into spoken words. The pyttsx3 library provides a simple interface for TTS functionality in Python. It is platform-independent and supports multiple voice properties, such as speed, volume, and choice of voice (male or female).

**Algorithm for Text-to-Speech Conversion:**

1. **Install Required Library:**
   * Install the pyttsx3 library using the command: !pip install pyttsx3.
2. **Initialize the Engine:**
   * Use pyttsx3.init() to create an engine instance.
3. **Configure Engine Properties:**
   * Adjust the speech rate using engine.setProperty('rate', <value>).
   * Set the volume level using engine.setProperty('volume', <value>).
   * Choose a voice (male or female) from engine.getProperty('voices').
4. **Define the Text:**
   * Provide the text to be converted into speech.
5. **Perform Text-to-Speech:**
   * Use engine.say(<text>) to queue the speech.
   * Execute the queued speech with engine.runAndWait().

**Python Code for Text-to-Speech Conversion:**

!pip install pyttsx3

import pyttsx3

engine = pyttsx3.init()

rate = engine.getProperty('rate')

engine.setProperty('rate', 150)

volume = engine.getProperty('volume')

engine.setProperty('volume', 0.9)

voices = engine.getProperty('voices')

engine.setProperty('voice', voices[0].id)

text = "Hello! Welcome to the text-to-speech demo using pyttsx3."

engine.say(text)

engine.runAndWait()