

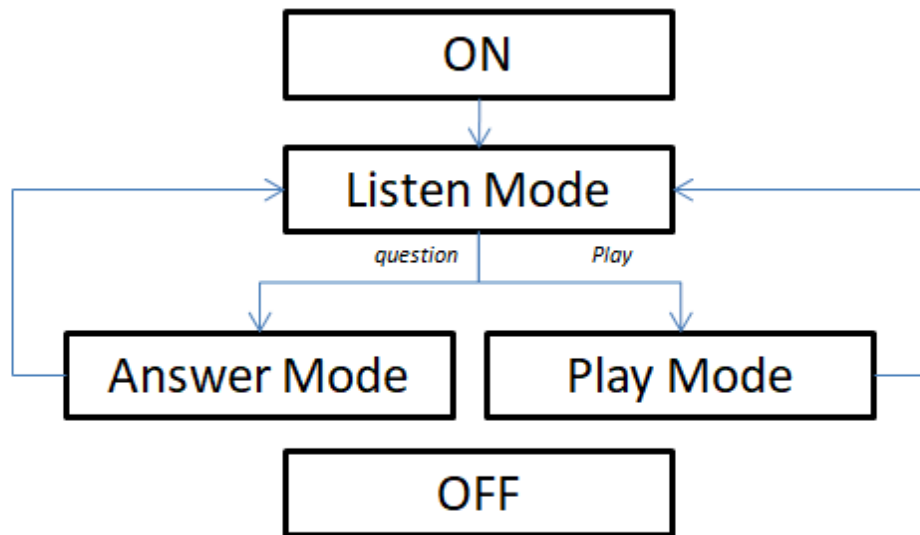
AmazonEcho documentation

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alt High level overview of Amazon echo program

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Database used SQLite, database table called audio, with columns id (int) , audio_name (text), data (blob) category (text), SHORT_DEC (text)

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Text to Speech

1.1 Text to speech method

1.1.1 Text to speech converter

Use it like this:

```
from txt_to_speech import text_to_speech  
  
text_to_speech("what is your name")
```

`txt_to_speech.text_to_speech (text: str) → str`

function converts text to speech uses the request module to send text content to microsoft returns binary data.

Parameters `text` (*str*) – A string of text.

Returns returns text in the form of binary

Return type str

Speech to text

2.1 Converts speech to text

Use it like this:

```
from speech_to_txt import speech_to_text
speech_to_text()
```

`speech_to_txt.speech_to_text ()` → None

reads the dd.wav and sends the data to microsoft api to translate into english text

Returns: text form of speech is returned

Answer Question Mode

3.1 Answer question method

Use it like this::

```
from answer_service import answer_mode question = "who is the queen of england" answer_service(question)
```

`answer_service.answer_mode (question: str) → str`

Takes a users question in string format Returns results from wolframalpha api in json format
raises Error when question is not found or server error

Parameters `question (str)` – a string of text

Returns response to the question from api

Return type str

Database Configuration

4.1 Add data to database

4.1.1 Add data to database

Example of a method use:

```
from database_entry import insert_file
insert_file('quiet-music.wav', 'sample.db', 'audio', "music" , "quiet")
```

`database_entry.convert_into_binary (file_path: str) → str`

Takes a file with wav format converts to binary

Parameters `file_path (str)` – file path

Returns returns binary

Return type str

`database_entry.create_db_table (db_name: str) → str`

db_name creates the database and schema in sqlite

`database_entry.insert_file (file_name: str, db_name: str, table_name: str, category: str, SHORT_DESC: str)`

inserts audio data into sqlite and stores it as a blob format.

- Parameters**
- `file_name (str)` – audio file name
 - `db_name (str)` – database name to connect
 - `table_name (str)` – table name to connect
 - `category (str)` – category of audio e.g. Loud
 - `SHORT_DESC (str)` – description of the audio

Returns: adds data to database

`database_entry.sqlite_connect (db_name: str) → str`

takes database name and attempts to connect

Database Configuration

5.1 Retrive data from database

5.1.1 Retrive data from database

Use it like this:

```
from database_retriv import retrieve_file  
retrieve_file("dog barking")
```

`database_retriv.retrieve_file (file_name: str) → str`

takes in a string and searches the string value in the database when found BLOB in data format is returned/played else not found error returned

Listening service

6.1 Records users voice into text

6.1.1 Listens users voice into text

Use it like this::

`record()` # this will start voice recording

`listening_service.record (duration=5.0)` → bool

pyaudio records users voice and converts to wav format

Parameters `duration` (*float, optional*) – Defaults to 5.0.

Returns Microphone begins recording voice

Return type bool

Play service

7.1 Plays Binary

7.1.1 Plays Binary

Use it like this:

```
from play_service import play
play()
```

`play_service.play (audio_in: any)`

takes in wav data and plays it

Parameters `audio_in` (*any*) – A Binary

Raises `FileNotFoundError` – if recording is not saved

GUI & Controller

8.1 Runs Amazon Echo

8.1.1 Runs Amazon Echo program

`main.Simpletoggle ()` → None

ON/OFF mode for echo with welcome messages.

`main.controller ()` → None

A directional services for speech if user requests play, passess to pass rel functions if user asks a questions pass to rel function to handle

`main.create_thread ()` → None

To process multiple threads at same time.

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- search

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