

March 2018 Meetup Minutes

Date: 24th March, 2018

Time: 3:30 PM

Intro

Vijay started the meet with an intro and the explanation of what a meetup is. As part of the meetup, it is not required to know anything regarding the topic being taken.

A for Aysnc by Vijay Kumar

Async was introduced with python 3.6.

A few problems that require Parallel Execution are:

- Games:
 - Controlling multiple sprites
- Chat applications:
 - Sending and receiving messages at the same time

This kind of concurrent programming can be achieved by:

- Multiprocessing:
 - Running multiple processes at the same time
- Multi-threading:
 - Running multiple threads at the same time on a single process
- Callbacks based execution using Scheduler
- Coroutines using Twirl
 - Define and invoke
 - await and Execute send() everytime

Vijay recommended to check out the talk from David Beazley, [Concurrency from Ground Up](#).

Async was introduced with Python 3.6 to allow ease in creating asynchronous tasks. Async delegates loops to OS for execution. Async allows easy switching to tasks that are ready to execute and doesn't waste time.

Open Tamil Text Processing Library by Muthu

[Open-Tamil](#) is a set of Python libraries which can help your application support Tamil text processing. The library can be accessed by using:

```
pip install open-tamil
```

The library can be checked online at tamilpesu.us. The following are a few examples that can be accessed:

- Sort
- Word frequency
- Text to IPA

As part of this project, a programming language called **Ezhil** was also created. This would help introduce students to programming with basic commands. More about the Ezhil programming language can be accessed at ezhillang.org

4:45pm: Tea Break

After the tea break, there were a few lightning talks.

Lightning Talk by Naren: Reverse check git repo

To get an idea of how a project had started we can use the following command:

```
git log --reverse
```

The above command gives the list of all commits to a git repo in reverse. This will help get a grip of the progress of the repository over time. Usually the first commit is a README.md

A few libraries that were used for the presentation:

- [Requests](#) - Kenneth Reitz
- [Cpython](#) - Guido Van Rossum
- [Go](#) - Brian Kernighan

An interesting easter egg in the **go** repo's reverse commit is one made in 1972, a tribute to B lang with the hello.b.

Lightning Talk by Aravindan - LoPy IoT

A demo of a basic Lora based LoPy setup was shown by Aravindan. Major advantages of using the Lora device are:

- Connectivity
- Battery
- Security

The alternative methods of connectivity for IoT are:

- Bluetooth
- Wifi
- GSM

The above means are power hungry. Alternatively, Lora works on radio frequency and provides a long range of upto 100km. The device shown had a range of 44km and made by **pycom**.

LoraPy runs with a MicroPy framework. So Micro Python can be used to program the LoPy device.

The data transmitted between the 2 devices in the demo was shown in the dashboard at thethingsnetwork.org. This site provides support to Lora devices. Lora devices can connect to the cloud through this site. More than 3000 devices are currently connected to the site.

Python Dash - R Shiny's equivalent in Python by Arunram

Dash helps in creating a responsive, custom styled application with interactive graphs, tables and other components. Dash is built with a combination of:

- Flask
- React JS
- Plotly

Dash helps in easy cration and data visualisation using Plotly graphs. The following were demonstrated using Dash:

- Graphs
- Tables
- Components
- Interactivity

Venue: Tarka Labs

Networking tea: CPC Diagnostics.