



**DAYANANDA SAGAR COLLEGE OF ENGINEERING**

An Autonomous Institution Affiliated to VTU, Belagavi

**DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING**

# **Token Scheduling System**

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# **Abstract**

This project presents the implementation of a Python-based token scheduling system tailored for banking environments in a LAN setting, the system offers features such as token generation, real-time display, and simultaneous handling of multiple counters. Installation involves running a server and two clients on three connected computers. Leveraging websockets, the server manages token queues, while clients display and call tokens. Emphasizing flexibility and cost-effectiveness, the system can find applications beyond banks.



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# **Problem Definition**

The project addresses the need for a token scheduling system, specifically designed for banks, to enhance operational efficiency within a LAN environment. Traditional token systems in banks often involve complex software and expensive hardware, and this project aims to provide a more accessible and cost-effective alternative. The problem being addressed is the desire for a simple, affordable, and adaptable token scheduling solution that can streamline processes in service-oriented institutions.



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# **Proposed Methodology**

We Will be using Websockets to communicate between the server and the client. The server will be responsible for managing the tokens and the queues, while the client will be responsible for displaying the tokens and calling them. The server and the client will communicate with each other using websockets. The GUI is made using tkinter and the backend will be made using python. All the Systems will be connected to a common network and the server will be hosted on one of the systems. The server will be responsible for managing the tokens and the queues, while the client will be responsible for displaying the tokens and calling them. The server and the client will communicate with each other using websockets.



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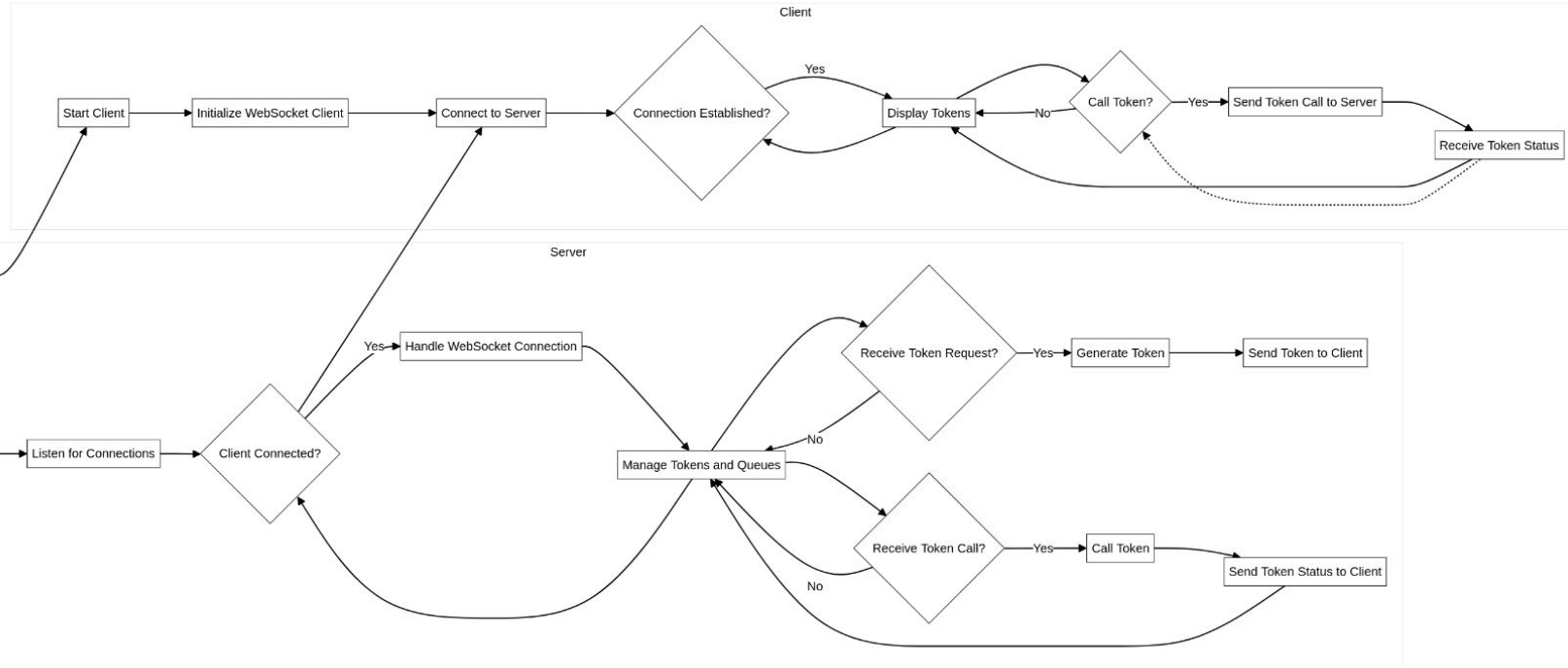
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# **Software/Hardware Requirements**

- Python 3
- Sockets
- Tkinter
- PySimpleGUI
- Pygame
- 1-3 Computers
- Connected to a common network

# Flow Chart



# Result

## Welcome to Namma Bank

Please select a Counter to get a token



Your token is

**1B**

Please wait for your turn

Close

File Edit Selection View Go Run ...

Token-Scheduler

main.py python Scduler and Server

EXPLORER

TOKEN-SCHEDULER

- Client
  - client\_counter.py
  - client\_generator.py
  - ding.mp3
- Scduler and S...
- .gitignore
- LICENSE
- README.md
- requirements.txt

OUTLINE

TIMELINE

```
[suvanbanerjee@elitebook-830-g5 Token-Scheduler]$ cd Scduler\ and\ Server/
[suvanbanerjee@elitebook-830-g5 Scduler and Server]$ python main.py
Server is Up
Connection from ('127.0.0.1', 37110)
['1A']
Connection from ('127.0.0.1', 59238)
['1A', '2A']
Connection from ('127.0.0.1', 59242)
['1A', '2A', '3C']
Connection from ('127.0.0.1', 59254)
['1A', '2A', '3C', '4A']
Connection from ('127.0.0.1', 59270)
['1A', '2A', '3C', '4A', '5B']
Connection from ('127.0.0.1', 59286)
['1A', '2A', '3C', '4A', '5B', '6D']
```

Bank

Next Token

Hold Token

1629c9e5\* 0 0 0 0 Go Live



# Current Tokens

1A

2A

3C

4A



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# **Thank You**