

## NS Distributed Systems Practical — Passive Replication

**Aim and Scope:** You are required to implement a distributed system, called “Just Hungry”, based on passive replication, supporting online food ordering and delivery. You are expected to use RMI in Python (Pyro) implementing the system.

**Requirements:**

- Back-end Server Implementation: With passive replication, implement at least three back-end servers to accept, process and make responses to user orders.
- Front-end Server Implementation: Implement a front-end server to provide one system access, preventing a client to have direct access to individual system components and supporting transparency requirements.
- Client Implementation: Implement a client program to allow a user to access the required distributed system by making food ordering requests and receiving system responses.
- Use of Web Services (Optional): Incorporate external Web Services to validate the delivery address retrieval by postal code.

For implementation, you should apply knowledge and methods you have learnt from the lectures and practical sessions so far. Your implementation is expected to focus on the distributed system aspects. You may create a minimal amount of sample data to help you demonstrate the system functionalities and how the system meets the requirements. You may also implement your work using a text-based user interface and a memory-based data structure (e.g., array) to store and update system information. Other irrelevant features including database design and graphical user interface are not required.