Assignment 1

Team contribution report

Course: SENG2031 – System Programming

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Group A123-2

Members:

Gee, Tyler

Torrefranca, Cy Iver

Shapka, George

Nguyen, Tuan Thanh

# Artifacts and ownership

## Gee, tyler – Initial codebase & build

* Makefile
  + Set up compiler flags and targets for building both programs
* Client.c
  + Implemented client-side utilities and the interactive workflow:
    - Prompt/validate loops
    - Input validation such as non-blank, regex/name checks: numeric range for age; address non-blank.
    - CSV formatting for each client record
  + input error handling helpers.
* Main.c
  + Small harness to test/verify client utilities and data formatting.
* Agency.h / client.h
  + Early model headers for Trip and Client structures.
* Shared.h
  + First pass at shared constants/macros (FIFO path, buffer sizes), and shared declarations.
* Server.c
  + Early server skeleton (open/read FIFO and print messages) to prove IPC plumbing.

### Summary:

Tyler bootstrapped the project: build system, client workflow (prompts + validation + CSV), initial data models, starter server, and a shared header—creating the baseline that satisfies most of the client-side requirements and establishes coding conventions.

## Torrefranca, Cy Iver – FInalisation of shared interface and server

* Shared.h(final update)
  + Centralized FIFO Path, permissiosn, buffer/regex limits and timeout constants
  + Contains all client/trip data structures and shared helper prototypes
  + Removed header duplication
* Server.c(final update)
  + Added server.c requirements server logic
  + Implemented receiving and client data from clients via FIFO
  + Tracks party state, destination and client count
  + Parses and dispalys each client info when received
  + Prints party summary at the end of each party session
* Client.c
  + Manages client inactivity with signal handler
  + Collect and validates user input for trip and client data
  + Added client connectivity to server vice versa user feedback

### Summary:

Cy brought the shared header and server to a “ready for marking” state—meeting the IPC, protocol, and signals requirements, and eliminating interface drift between programs.

## NGuyen, tuan thanh – Finalisation and support

* Shared.h(final update)
  + Define constants for summary size.
  + Confirmed all timeouts and buffer sizes come from constants rather than literals.
* Server.c(final update)
  + Redesign the UI to be cleaner and easier to read.
* Client.c(final update)
  + Redesign the UI to be cleaner and easier to read.
  + Ensure input validation works correctly.
* Compilation and Submission
  + Coordinate final assembly and verification. I ensured the project built cleanly with strict flags, verified client/server protocol sync over the FIFO, and validated the end-to-end run (including signal timeout).

## shapka, george --