CS132 API Specification

Spring24

Peilin He,

Wentao Wang

Elevator Project

Passenger

- Goal： Go to the target floor.

Elevator API

- **available operation/event**

- //available user operation

- **"open_door"**

- **"close_door"**

- **"call_up":** ["-1", "1", "2"], //For example, call_up@1 means a user on the first floor presses the button to call the elevator to go upwards.

- **"call_down"**: ["3", "2", "1"], //For instance, call_down@3 signifies a user on the third floor pressing the button to call the elevator to go downwards.

- **"select_floor":** ["-1#1", "-1#2", "1#1", "1#2", "2#1", "2#2", "3#1", "3#2"], //For example, select_floor@2#1 means a user in elevator #1 selects to go to the second floor.

- **"reset"**: When your elevator system receives a reset signal, it should reset the elevator's state machine to its initial state

Elevator API

- //available system event

- **"door_opened":** ["#1", "#2"], door_opened#1 means the doors of elevator #1 have opened.

- **"door_closed":** ["#1", "#2"], door_closed#1 means the doors of elevator #1 have closed.

- **"floor_arrived**":["up","down",""],["-1","1","2","3"],["#1", "#2"] //"up_floor_1_arrived#1", indicating that elevator #1 has arrived at the first floor while moving upwards. "floor_1_arrived#1",indicating that elevator #1 has stopped at the first floor.

- **Elevator system initial assumption**

- Assume that both elevators(#1, #2) initially **stop on the first floor** and the doors are **closed**.

Banking System Project

Banking System API

- //available user operation

- ON ATM:

- "create_acount@password": // E.g. create_acount@123456

- "close_acount"

- "insert_card@id": // E.g. insert_card@2024132789

- "return_card"

- "deposit_cash@num": // E.g. deposit_cash@2000

- "withdraw_cash@num@password" // E.g. withdraw_cash@1000@123456

Banking System API

- ON APP:

- "log_in@id@password#app_id": // E.g. log_in@2024132789@123456#1

- "log_out#app_id": // E.g. log_out#1

- "close_app#app_id": // E.g. close_app#1

- Both:

- "change_password@new_password(#app_id)": // E.g. change_password@654321(#1)

- "transfer_money@receiver_id@num(#app_id)" // E.g. transfer_money@2023123456@500(#1)

- "query(#app_id)": // E.g. query(#1)

- Other:

- "open_app"

- "reset"

Banking System API

- "logged_in@id#app_id": // E.g. logged_in@2024132789#1

- "logged_out@id#app_id": // E.g. logged_out@2024132789#1

- "app_closed#app_id": // E.g. app_closed#1

- "password_changed(#app_id)": // E.g. password_changed(#1)

- "money_transfered@num(#app_id)": // E.g. money_transfered@500(#1)

- "query_showed(#app_id)": // E.g. query_showed(#1)

- "failed": ["create_acount", "close_acount", "insert_card", "return_card", "deposit_cash", "withdraw_cash", "log_in#app_id",
  "log_out#app_id", "close_app#app_id", "change_password(#app_id)", "transfer_money(#app_id)", "query(#app_id)", "open_app]

Banking System API

- //available system event

- "acount_created@id": // E.g. acount_created@2024132789

- "acount_closed@id":

- "card_inserted@id":

- "card_returned@id":

- "cash_deposited@num": // E.g. cash_deposited@2000

- "cash_withdrawn@num": // E.g. cash_withdrawn@1000

- "app_opened#app_id": // E.g. app_opened#2

Painkiller Injection System Project

Painkiller Injection System API

- //available user operation

- doctor:

-     "set_baseline": e.g. set_baseline@0.01

-     "set_bolus": e.g. set_bolus@0.2

-     "baseline_on"

-     "baseline_off"

- patient:

-     "request_bolus"