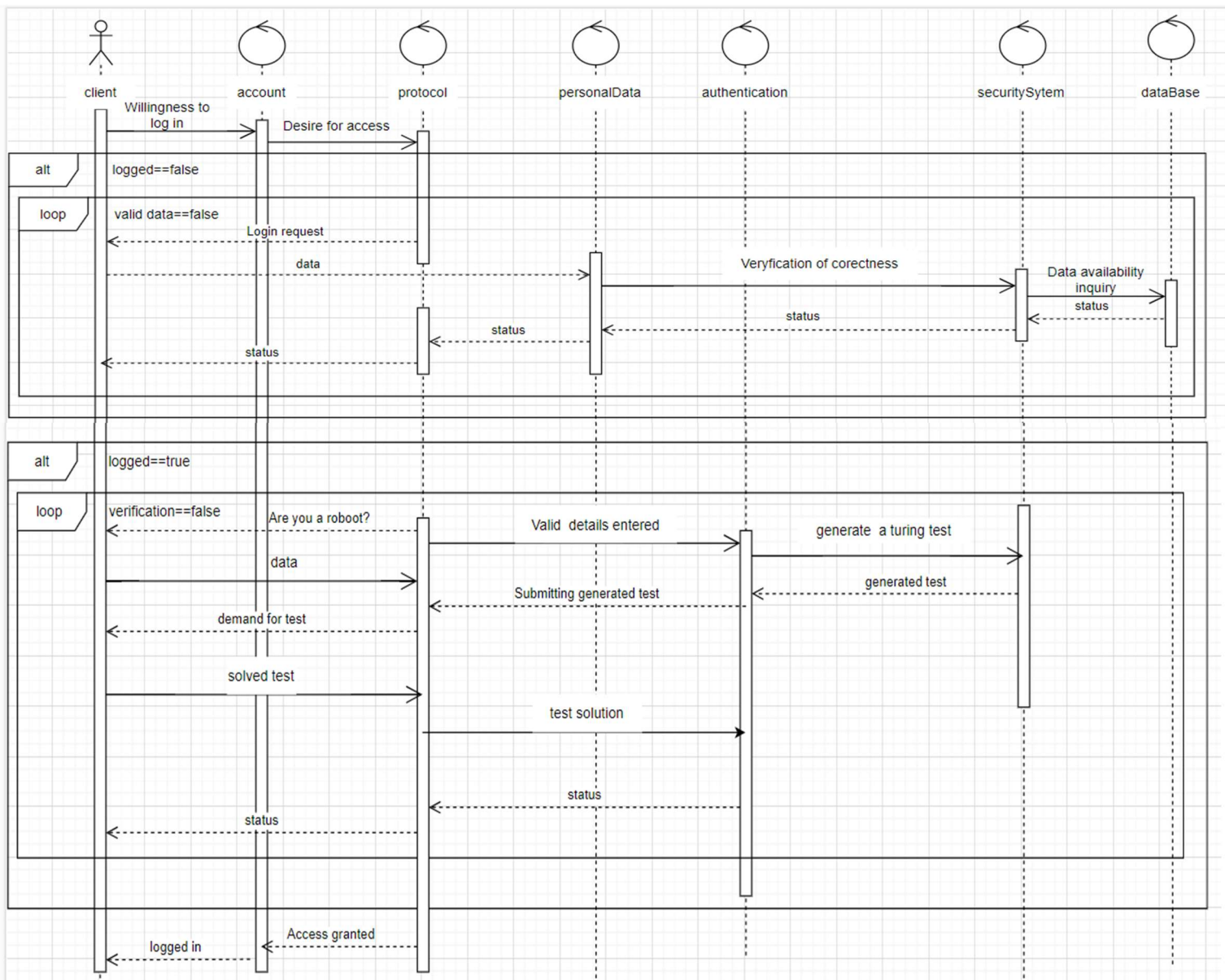Sprawozdanie 4

Julia Ołowniuk

Security systems in a bank

Sequence Diagrams:

1. The sequence diagram describing the generation of protocol whether the user trying to log into the bank is not a robot thanks to Turing's tests.
    It includes relationships between classes: account, protocol, personalData, security system and data base.

2. It is a sequence diagram describing the generation of a client's all activity history report.
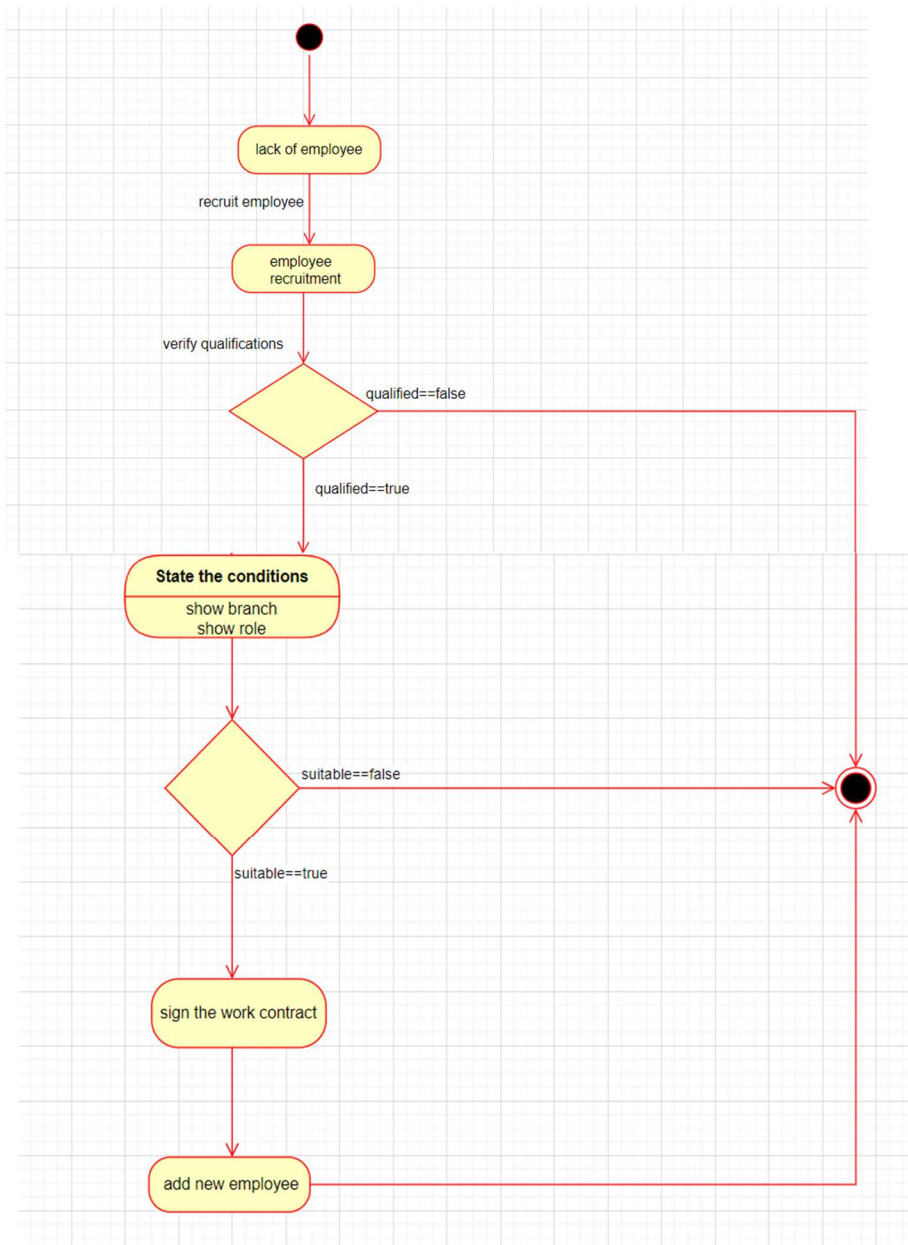   It includes relationships between classes: session, login history, security system, data base, raport, collection of information.
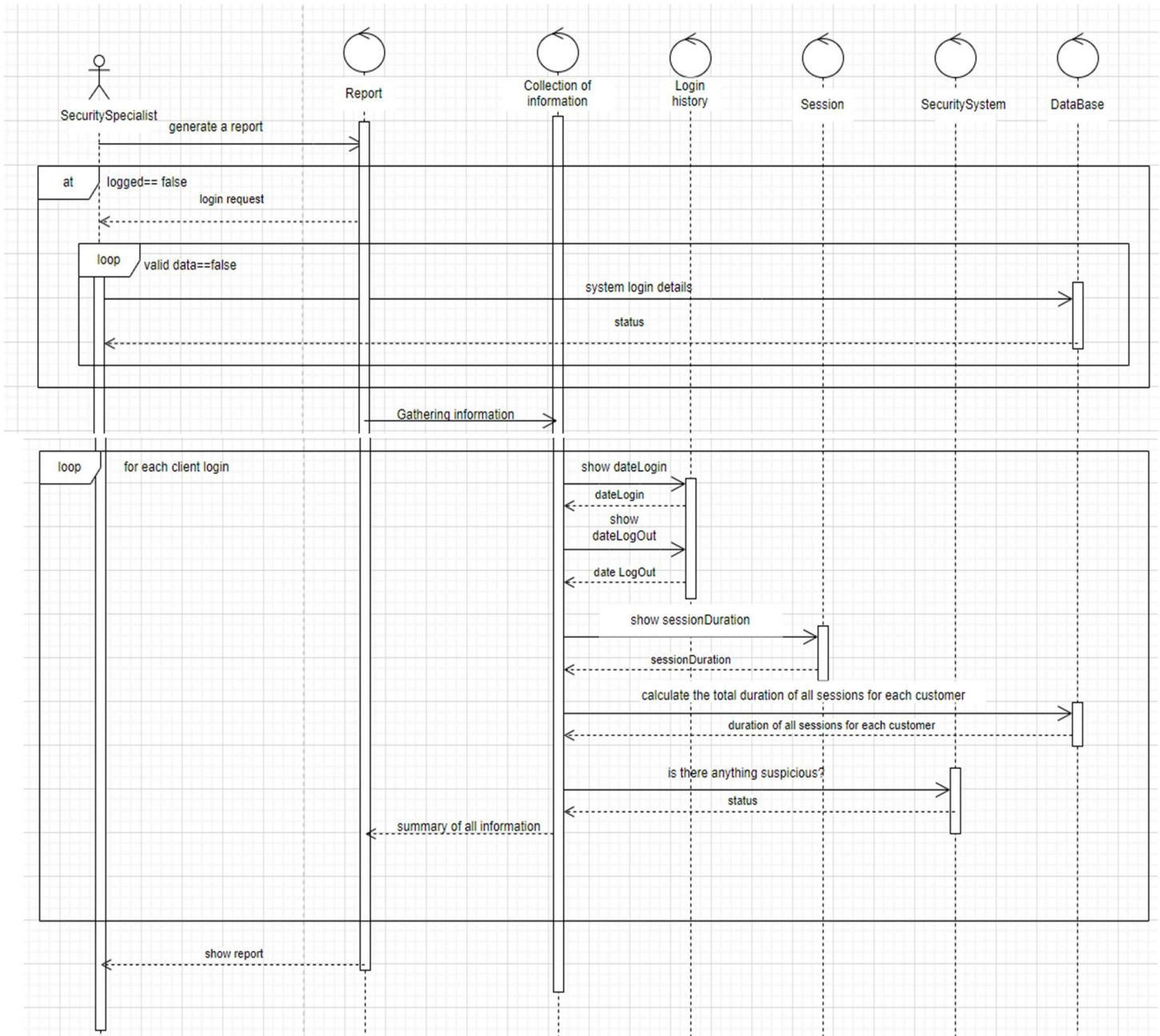
State diagrams:

1. The state diagram for adding a new employee.

   In the diagram, state transitions are shown from the absence of an employee to adding a new employee.

```
                    ●
                    │
                    ▼
            ┌──────────────┐
            │ lack of employee │
            └──────────────┘
                    │
              recruit employee
                    │
                    ▼
              ┌──────────┐
              │ employee  │
              │ recruitment│
              └──────────┘
                    │
            verify qualifications
                    │
                    ▼
                   ◇ ───────────── qualified==false ───────────┐
                    │                                            │
              qualified==true                                    │
                    │                                            │
                    ▼                                            │
            ┌──────────────────┐                                │
            │ State the conditions │                            │
            ├──────────────────┤                                │
            │   show branch     │                               │
            │   show role       │                               │
            └──────────────────┘                                │
                    │                                            │
                    ▼                                            │
                   ◇ ─────── suitable==false ──────────►  ◉     │
                    │                                            │
              suitable==true                                     │
                    │                                            │
                    ▼                                            │
            ┌──────────────────┐                                │
            │ sign the work contract │                          │
            └──────────────────┘                                │
                    │                                            │
                    ▼                                            │
            ┌──────────────┐                                    │
            │ add new employee │◄──────────────────────────────┘
            └──────────────┘
```

2. The state diagram of password change by the client.

The state diagram illustrating the password change by the client, depicted from threat of account compromise to the new password. Password change is required for security reasons.