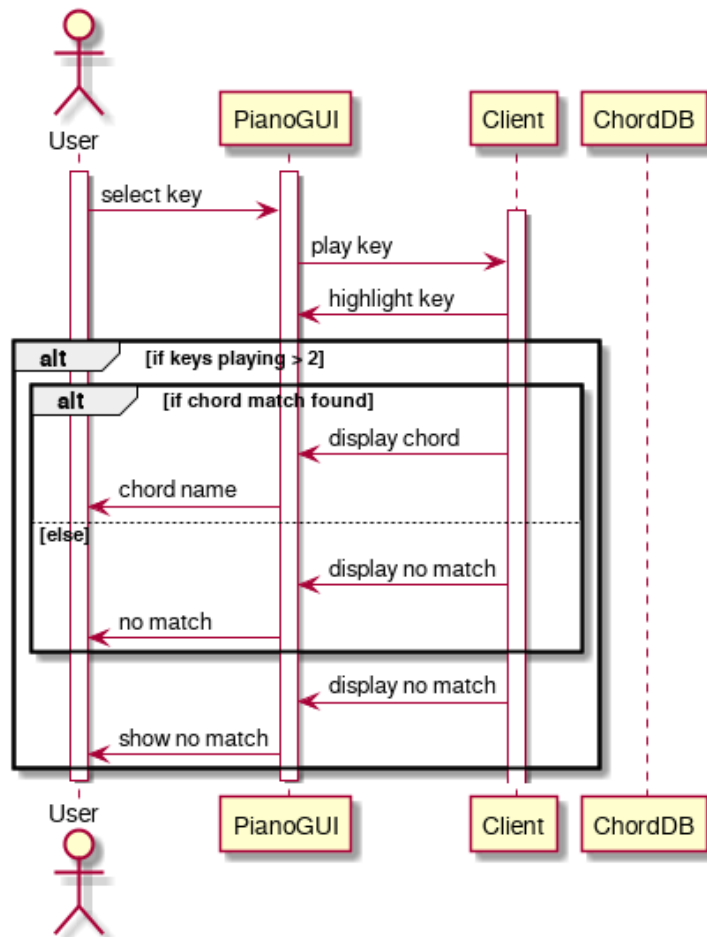


# Sequence Diagram Documents

## Find Chord

### Analysis Diagram



### Description

| #     | Subject              | Subject Action | Parameters | Object acted upon |
|-------|----------------------|----------------|------------|-------------------|
| 1     | User                 | select         | key        | PianoGUI          |
| 2     | PianoGUI             | play           | key        | Client            |
| 2.1   | Client               | highlight      | pianoKey   | PianoGUI          |
| 3     | If > 2 playing notes |                |            |                   |
| 3.2   | If Chord Match found |                |            |                   |
| 3.2.2 | Client               | display        | chord      | PianoGUI          |
| 3.2.3 | PianoGUI             | show           | chord      | User              |
| 3.2   | else                 |                |            |                   |
| 3.2.1 | Client               | display        | no match   | PianoGUI          |
| 3.2.2 | PianoGUI             | show           | no match   | User              |
| 3     | else                 |                |            |                   |
| 3.1   | Client               | display        | no match   | PianoGUI          |

| #   | Subject  | Subject Action | Parameters | Object acted upon |
|-----|----------|----------------|------------|-------------------|
| 3.2 | PianoGUI | show           | no match   | User              |

## Design Diagram



[Sign in with Google](#)

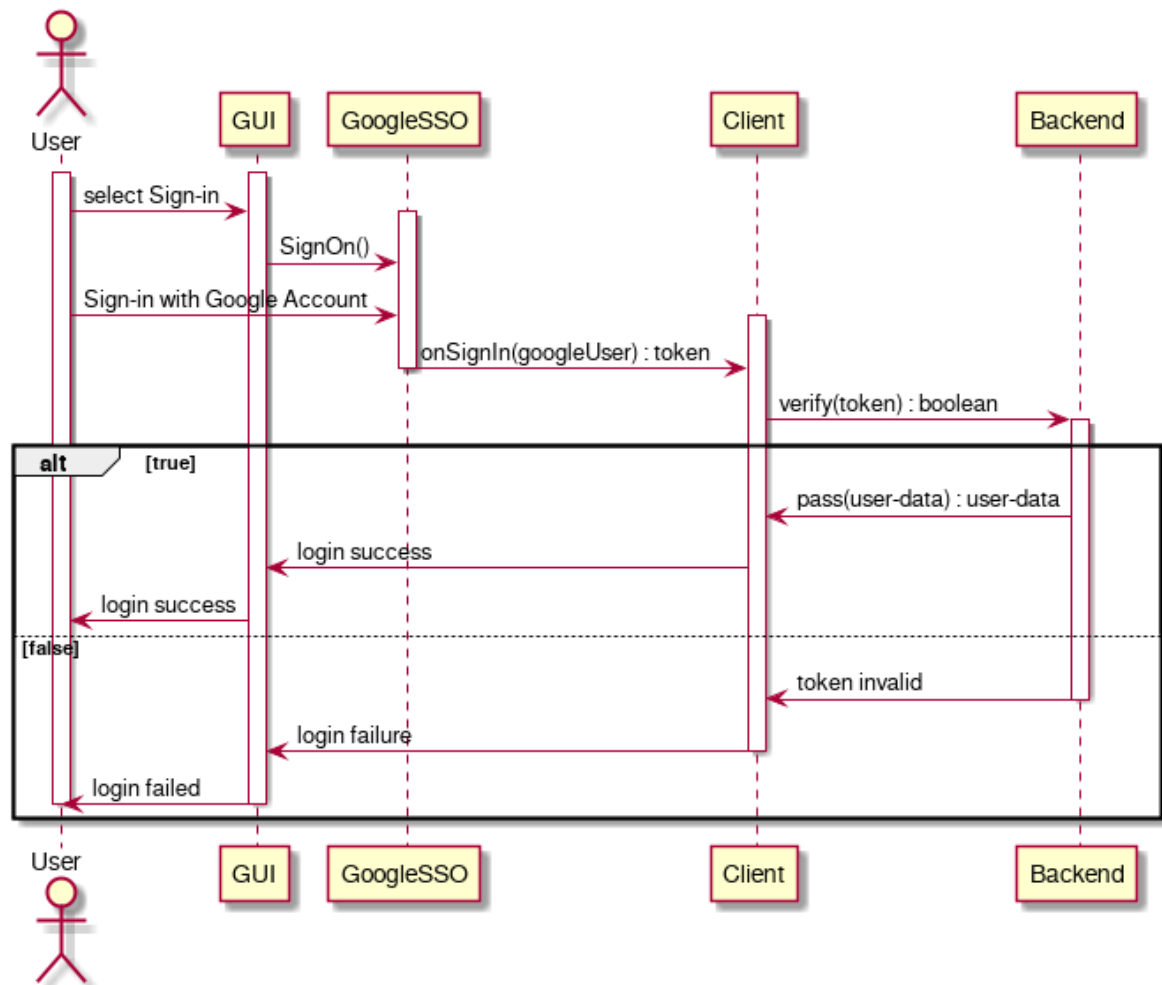
## Analysis Diagram



## Description

| #     | Subject           | Subject Action | Parameters     | Object acted upon |
|-------|-------------------|----------------|----------------|-------------------|
| 1     | User              | select         | Sign-in        | GUI               |
| 1.1   | GUI               | sign-in        | Google         | GoogleSSO         |
| 2.1   | User              | sign-in        | Google account | GoogleSSO         |
| 4.    | GoogleSSO         | onSignIn       | googleUser     | Client            |
| 4.1   | Client            | verify         | token          | Backend           |
| 4.2   | If token is valid |                |                |                   |
| 4.2.1 | Backend           | pass           | user-data      | Client            |
| 4.2.2 | Client            | message        | login success  | GUI               |
| 4.2.3 | GUI               | message        | logged in      | User              |
| 4.2   | else              |                |                |                   |
| 4.2.1 | Backend           | message        | token invalid  | Client            |
| 4.2.2 | Client            | message        | login failure  | GUI               |
| 4.2.3 | GUI               | message        | login failed   | User              |

## Design Diagram



## Upload Progression

### Analysis Diagram



## Description

| #     | Subject                 | Subject Action | Parameters  | Object acted upon |
|-------|-------------------------|----------------|-------------|-------------------|
| 1     | User                    | upload         | Progression | GUI               |
| 2     | GUI                     | send           | Progression | Client            |
| 3     | Client                  | send           | Progression | FileChecker       |
| 4.1   | If progression is valid |                |             |                   |
| 4.1.1 | FileChecker             | returns        | message     | client            |
| 4.1.2 | Client                  | displays       | message     | GUI               |
| 4.2   | else                    |                |             |                   |
| 4.2.1 | FileChecker             | returns        | message     | client            |
| 4.2.2 | Client                  | displays       | message     | GUI               |

## Design Diagram



## Download Progression

### Analysis Diagram



### Description

| # | Subject | Subject Action | Parameters  | Object acted upon |
|---|---------|----------------|-------------|-------------------|
| 1 | User    | save           | Progression | GUI               |

| #     | Subject                 | Subject Action | Parameters  | Object acted upon |
|-------|-------------------------|----------------|-------------|-------------------|
| 2     | GUI                     | send           | Progression | Client            |
| 3.1   | If progression is valid |                |             |                   |
| 3.1.1 | Client                  | displays       | message     | GUI               |
| 3.2   | else                    |                |             |                   |
| 3.2.1 | Client                  | sends          | Progression | FileBuilder       |
| 3.2.2 | FileBuilder             | returns        | file        | Client            |
| 3.2.3 | Client                  | returns        | file        | GUI               |
| 3.2.4 | GUI                     | sends          | file        | User              |

## Design Diagram

