

Computer Networks pRj2

Author: b05902127 劉俊緯, b05902117 陳柏文

Program & Protocol Design

- All command's format

```
{
  "opcode" : "char",
  "length" : "unsigned long long"
}
```

- Types of Opcode

opcode	details
s	Sing up : send usr/pwd to register an account.
l	Login : send usr/pwd to login.
m	Messaging : send a message.
r	Refresh : update message history.
u	Upload File : Upload a file.
d	Download file : Download a file
a	All user : Show all user/ friend list/ black list of login account.
x	Edit Friend / Black List
!	Server message

Sign up

Request

```
{
  "username" : "string",
  "password" : "string"
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" : {}
}
```

Login

Request

```
{
  "user_name" : "string",
  "password" : "string"
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" : {}
}
```

Message

Request

```
{
  "target" : "int",
  "type" : "message/data",
  "message" : "string"
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" : []
}
```

Refresh

Request

```
{
  "target" : "int",
  "start_from" : int,
  "end_to" : int,
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" : {
    line_number: {
      "who" : int
      "type" : ""
      "message" : ""
    }
  }
}
```

Upload File

Request

```
{
  "target" : "int",
  "filename" : "string",
  "data" : base64(file),
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" : {}
}
```

Download File

Request

```
{
  "target" : "int",
  "filename" : "string",
  "FILEID" : "string",
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" : [base64(file)]
}
```

Show All User

Request

```
{
  "target" : "string",
  // b: blak_list, f: friend_list, a: user_list.
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" :
  [
    ["id1", "name1"],
    ["id2", "name2"]
  ]
}
```

Edit Black / Friend List

Request

```
{
  "op" : "string",
  // add / delete
  "target" : "int"
}
```

Response

```
{
  "status_code" : int,
  "state" : "string",
  "data" : []
}
```

User & Operator Guide

How2Run?

Bonus
