**Module Interface Specification**

# Database Subsystem

# For Remote Authentication

# Using Facial Recognition

Revision History:

|  |  |  |
| --- | --- | --- |
| Date | Author | Description |
| 2016-04-24 | Shao Shuai&Wang Feng | Version 1.0 |
| 2016-04-25 | Wang Qianwei | Translation |
| 2016-04-30 | Wang Feng | Version 2.0 |
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1. **Introduction**

This API document is provided by team EMPIRE, Jilin University, focusing on the service provided by the database and its access method.

1. **Interface Overview**

**a. Service Provided**

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| **Service** | **Provided by** |
| Register a new user | newUser |
| Verify whether a user exists or not | newUser |
| Get facial information | testCredentials |
| Store user’s image into database | saveUserImages |

**b. Access Methods**

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| --- | --- | --- | --- | --- |
| **Access Method** | **Parameter Name** | **Parameter Type** | **Description** | **Exceptions** |
| newUser | 1.userName  2.passwdMd5  3.retCode (O)  P.S.: O stands for the returned value | 1.String  2.string  3.string | 1.The identification of user, any two IDs must not be the same.  2.The login password for users.  3.The respond to the calling for the interface. | 1,3,4 |
| testCredentials | 1.userName  2.passwdMd5  3.retCode(O)  4.facial feature(O) | 1.String  2.String  3.String  4.String | 1.ditto  2.ditto  3.ditto  4.Facal feature of the website | 2,4,5,6 |
| saveUserImages | 1.userName  2.passwdMd5  3.Images  4.train status  5.retCode (O) | 1.String  2.String  3.string  4.boolean  5.String | 1.ditto  2.ditto  3.images of users  4.train status of images,True for completed training,else False.  5.ditto | 2,7 |

**c. Access Method Effects**

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| Access Method | Description |
| newUser | Using the POST Method of HTTP Protocol, register a new user or check a user’s password.. |
| testCredentials | Using the POST Method of HTTP Protoco,get the facial feature of one user. |
| saveUserImages | Using the POST Method of HTTP Protocol, save the user’s images into database.. |

1. **Exception Dictionary**

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| --- | --- | --- |
| Exception Name | Description | retCode |
| 1.Username already registered | It is necessary to check if the username has already been registered when a new user is registering. Usernames cannot be the same. | [500,0 ] |
| 2.Username does not exist | When operating on the information of a user whose username does not exist, the system throw this exception. | [500,0] |
| 3.Username format error | Username format ineligible (At the present stage, the authentication server ensures this). | [500,0] |
| 4.Password format error | Password format ineligible (At the present stage, the authentication server ensures this). | [500,0] |
| 5.Name of face recognition web service provider error | Ineligible web service name is passed (At the present stage, the authentication server ensures this). | [500,0] |
| 6.Face identification format error | Error face identification is passed. | [500,0] |
| 7.Image format error | The image format is error. | [500,0] |