Interface Specification

<Server>

# Introduction

The aim of this document is to clarify the services required and provided by the server side of the system.

# Services

In this module, the server is responsible for interacting with web and client side, calling algorithm modules and storing diagnosis data.

## Services Provided

|  |  |  |
| --- | --- | --- |
| Service | Provided By | Tested By |
| 1. User Verification (for log-in) | checkUserInfo | T1 |
| 1. User information storage (for registration) | saveUserInfo | T2 |
| 1. Calling algorithm modules | getCobb | T1 |
| 1. Diagnosis record storage | saveDiagnosis | T1 |
| 1. Data retrieval | getPatientHistory  getDiagnosisResults | T3 |

## Services Required

|  |  |  |
| --- | --- | --- |
| Service | Provided By | Tested By |
| 1. Cobb Calculation | calCobb |  |
| 1. Test image uploading | getTestImg  getBatch |  |

## Methods

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Methods** | **Parameter name** | **Parameter type** | **Description** | **Exceptions** | **Map to services** |
| checkUserInfo | userinfo | array of String | check the validity of the user information |  | 1 |
| saveUserInfo | account | array of String | save the user’s personal information |  | 2 |
| getCobb | img | Image object | call the algorithm module to get the Cobb angle. |  | 3 |
| saveDiagnosis | result | array of string | save the result of diagnosis |  | 4 |
| getPatientHistory | PatientID | Integer | return information of a specific patient |  | 5 |
| getDiagnosisResults |  |  | return the diagnosis results |  | 5 |

# Test Cases

### 3.1 T1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Step** | **Description** | **Input Type/Value** | **Expected Results** | **Service** | **Preamble** |
| 1 | checkUserInfo | array of String | check the validity of the user information, and the result is returned to the front-end | 1 | 1 |
| 2 | getCobb | Image object | the Cobb angle of the given image is calculated by algorithm modules. | *3* | 2 |
| 3 | saveDiagnosis | array of String | The diagnosis records are saved to the database | *4* | 3 |

### 3.2 T2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Step** | **Description** | **Input Type/Value** | **Expected Results** | **Service** | **Preamble** |
| 1 | saveUserInfo | array of String | user information are saved to the database | 2 | 1 |

### 3.3 T3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Step** | **Description** | **Input Type/Value** | **Expected Results** | **Service** | **Preamble** |
| 1 | getPatientHistory | Patient ID | information of a specific patient is retrieved | 5 | 1 |