List of all Server Packets

This document outlines what the data portion of each type of packet will contain. Each packet has extra padding for extra reliability.

**Receive:**

**Login**:

Client is attempting to login with a username

|  |  |  |  |
| --- | --- | --- | --- |
| Padding | 0 | username | Padding |

**retryLogin**:

The client failed the first login, and is attempting to log in for the nth time (N<3)

|  |  |  |  |
| --- | --- | --- | --- |
| Padding | 1 | username | Padding |

**newUserCreation**:

Client requests a new user with this username

|  |  |  |  |
| --- | --- | --- | --- |
| Padding | 2 | username | Padding |

**newMeasurement**:

Client with this username is submitting a new measurement

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Padding | 3 | username | armLength | circum1 | circum2 | Padding |

**Send:**

These packets covers the success path and all major errors

**noUser**:

No user was found with the username requested

|  |  |  |
| --- | --- | --- |
| Padding | 5 | Padding |

**maxLogins**:

Server exceeded maximum number of failed logins for this username

|  |  |  |
| --- | --- | --- |
| Padding | 7 | Padding |

**AddedMeasurementSuccessful**:

Server successfully added a measurement

|  |  |  |
| --- | --- | --- |
| Padding | 8 | Padding |

**Measurement**:

This packet is sent when the client requests measurements tied to the username

If only one measurement found:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Padding | 9 | numberOfMeasurements | padding | Armlength | Circum1 | Circum2 | padding |

If more than one measurement was found it will be appended to the packet after a padding

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Padding | 9 | numberOfMeasurements | padding | armlength | Circum1 | Circum2 | padding | … | padding |

**The Database:**

The database rows look like this

|  |  |  |  |
| --- | --- | --- | --- |
| **Username** | **armLength** | **Circum1** | **Circum2** |
| Example\_1 | 4 | 2 | 2 |
| Example\_2 | 6 | 4 | 5 |
| Example\_2 | 6 | 3 | 4 |