Network Protocol

Each command below includes two representations:

- **User Input:** What the user types (no concealed parameters)

- **Server Receives:** Full network message with concealed parameters:

```
|ObjectId,GameSessionId,UsernameId,MessageId|
```

0.1 CREATEGAME

This command creates a new game session with the given name.
User Input:

```
CREATEGAME{REQUEST}[S:GameSessionName]
```

Server Receives:

```
CREATEGAME{REQUEST}[S:GameSessionName] |S:ObjectId,S:GameSessionId,S:UsernameId,S:uuid
    -001|
```

0.2 JOINGAME

This command joins the specified existing game session.
User Input:

```
JOINGAME{REQUEST}[S:GameSessionName]
```

Server Receives:

```
JOINGAME{REQUEST}[S:GameSessionName] |S:ObjectId,S:GameSessionId,S:UsernameId,S:uuid-002|
```

0.3 CREATEGO – Platform

Creates a platform object with defined position and size in the game world.
User Input:

```
CREATEGO{REQUEST}[S:Platform, S:Floor, D:100.0, D:300.0, D:800.0, D:20.0, S:GameSessionId
    ]
```

Server Receives:

```
CREATEGO{REQUEST}[S:Platform, S:Floor, D:100.0, D:300.0, D:800.0, D:20.0, S:GameSessionId
    ] |S:Floor,S:64c6afbd-e581-4b72-99b4-4192e3f1e1ee,S:UsernameId,S:uuid-100|
```

0.4 CREATEGO – Box

Creates a box object with position, size and mass.

    User Input:

```
CREATEGO{REQUEST}[S:Box, S:Box1, F:300.0, F:100.0, F:30.0, F:30.0, F:100, S:GameSessionId
    ]
```

Server Receives:

```
CREATEGO{REQUEST}[S:Box, S:Box1, F:300.0, F:100.0, F:30.0, F:30.0, F:100, S:GameSessionId
    ] |S:Box1,S:83d890c2-b894-465f-8f25-522ad2bfa0e9,S:UsernameId,S:uuid-101|
```

0.5 CREATEGO – Door

Creates a door object at a specific location.

    User Input:

```
CREATEGO{REQUEST}[S:Door, S:Door1, F:800.0, F:100.0, F:50.0, F:120.0, S:GameSessionId]
```

Server Receives:

```
CREATEGO{REQUEST}[S:Door, S:Door1, F:800.0, F:100.0, F:50.0, F:120.0, S:GameSessionId] |S
    :Door1,S:2a4af5f6-afe9-44df-bfaf-826c235c9bb1,S:UsernameId,S:uuid-102|
```

0.6 CREATEGO – Key

Creates a key object used for unlocking doors or other objects.

    User Input:

```
CREATEGO{REQUEST}[S:Key, S:Key1, F:150.0, F:100.0, F:30.0, F:30.0, F:100.0, S:
    GameSessionId]
```

Server Receives:

```
CREATEGO{REQUEST}[S:Key, S:Key1, F:150.0, F:100.0, F:30.0, F:30.0, F:100.0, S:
    GameSessionId] |S:Key1,S:f31da970-0abf-4ef2-b4cd-62c6c120e066,S:UsernameId,S:uuid
    -103|
```

0.7 CREATEGO – MovingPlatform

Creates a moving platform with movement distance, speed and delay.

    User Input:

```
CREATEGO{REQUEST}[S:MovingPlatform, S:Platform1, F:200.0, F:300.0, F:200.0, F:50.0, F
    :300.0, F:10.0, F:10.0, F:5.0, S:GameSessionId]
```

Server Receives:

```
CREATEGO{REQUEST}[S:MovingPlatform, S:Platform1, F:200.0, F:300.0, F:200.0, F:50.0, F
    :300.0, F:10.0, F:10.0, F:5.0, S:GameSessionId] |S:Platform1,S:49420932-1c0d-46c6-9
    d46-06d37f1b0efe,S:UsernameId,S:uuid-104|
```

0.8 SELECTGO

Selects a game object by name within a game session.

User Input:

```
SELECTGO{REQUEST}[S:GameSessionId, S:Player1]
```

Server Receives:

```
SELECTGO{REQUEST}[S:GameSessionId, S:Player1] |S:Player1,S:GameSessionId,S:Player1,S:uuid
    -004|
```

0.9 CHANGENAME

Changes the display name of an existing game object.

User Input:

```
CHANGENAME{REQUEST}[S: GameSessionId, S:GameObjectname, S:NewHero]
```

Server Receives:

```
CHANGENAME{REQUEST}[S:GameSession123, S:Object42, S:NewHero] |S:NewHero,S:GameSessionId,S
    :Player1,S:uuid-005|
```

0.10 DELETEGO

Deletes a specified game object from the game session.

User Input:

```
DELETEGO{REQUEST}[S:GameSessionId, S:Object42]
```

Server Receives:

```
DELETEGO{REQUEST}[S:GameSession123, S:Object42] |S:Object42,S:GameSession123,S:Player1,S:
    uuid-006|
```

0.11 PING

Sends a ping request to check the connection.

User Input:

```
PING{REQUEST}[]
```

Server Receives:

```
PING{REQUEST}[] |S:ObjectId,S:GameSessionId,S:UsernameId,S:uuid-007|
```

0.12 USERJOINED

Checks whether a username is already taken and suggests a new one if needed.

User Input:

```
USERJOINED{REQUEST}[S:MegaPlayer]
```

Server Receives:

```
USERJOINED{REQUEST}[S:MegaPlayer] |S:MegaPlayer,S:GameSessionId,S:UsernameId,S:uuid-008|
```

0.13   LOGIN

Connects a client and assigns them to a game object by name.

User Input:

```
LOGIN{REQUEST}[S:NinjaGuy]
```

Server Receives:

```
LOGIN{REQUEST}[S:NinjaGuy] |S:NinjaGuy,S:GameSession123,S:UsernameId,S:uuid-009|
```

0.14   LOGOUT

Logs the client out and disconnects them from the game session.

User Input:

```
LOGOUT{REQUEST}[S:Player1]
```

Server Receives:

```
LOGOUT{REQUEST}[S:Player1] |S:Player1,S:GameSession123,S:UsernameId,S:uuid-010|
```

0.15   EXIT

Terminates the client's session and shuts down their connection.

User Input:

```
EXIT{REQUEST}[]
```

Server Receives:

```
EXIT{REQUEST}[] |S:ObjectId,S:GameSessionId,S:UsernameId,S:uuid-011|
```

0.16   WHISPER

Sends a private message to a specified user.

User Input:

```
WHISPER{REQUEST}[S:TargetUser, S:Hello privately!]
```

Server Receives:

```
WHISPER{REQUEST}[S:TargetUser, S:Hello privately!] |S:Player1,S:GameSessionId,S:Player1,S
    :uuid-013|
```

0.17   GETOBJECTID

Requests the object ID associated with a given username.

User Input:

```
GETOBJECTID{REQUEST}[S:Username]
```

Server Receives:

```
GETOBJECTID{REQUEST}[S:Username] |S:Username,S:GameSessionId,S:UsernameId,S:uuid-014|
```

0.18   GETUSERS

Requests a list of all users in the current game session.
User Input:

```
GETUSERS{REQUEST}[]
```

Server Receives:

```
GETUSERS{REQUEST}[]  |S:ObjectId,S:GameSessionId,S:UsernameId,S:uuid-015|
```