Assignment 2: Draft Message Architecture

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PROG2150-14F-Real-Time Operating Systems

Table of Contents

Send Hierarchy

PlaceShip	ShootTorpedo	ShipPlaced

TorpedoMissed

TorpedoHit

Server Start → Lobby → Game → Server Stop

Unregister

Start

Register

ViewPlayers

EndGame

Note: Only a selection of commands from each section of the server status are listed so that everything can be readable.
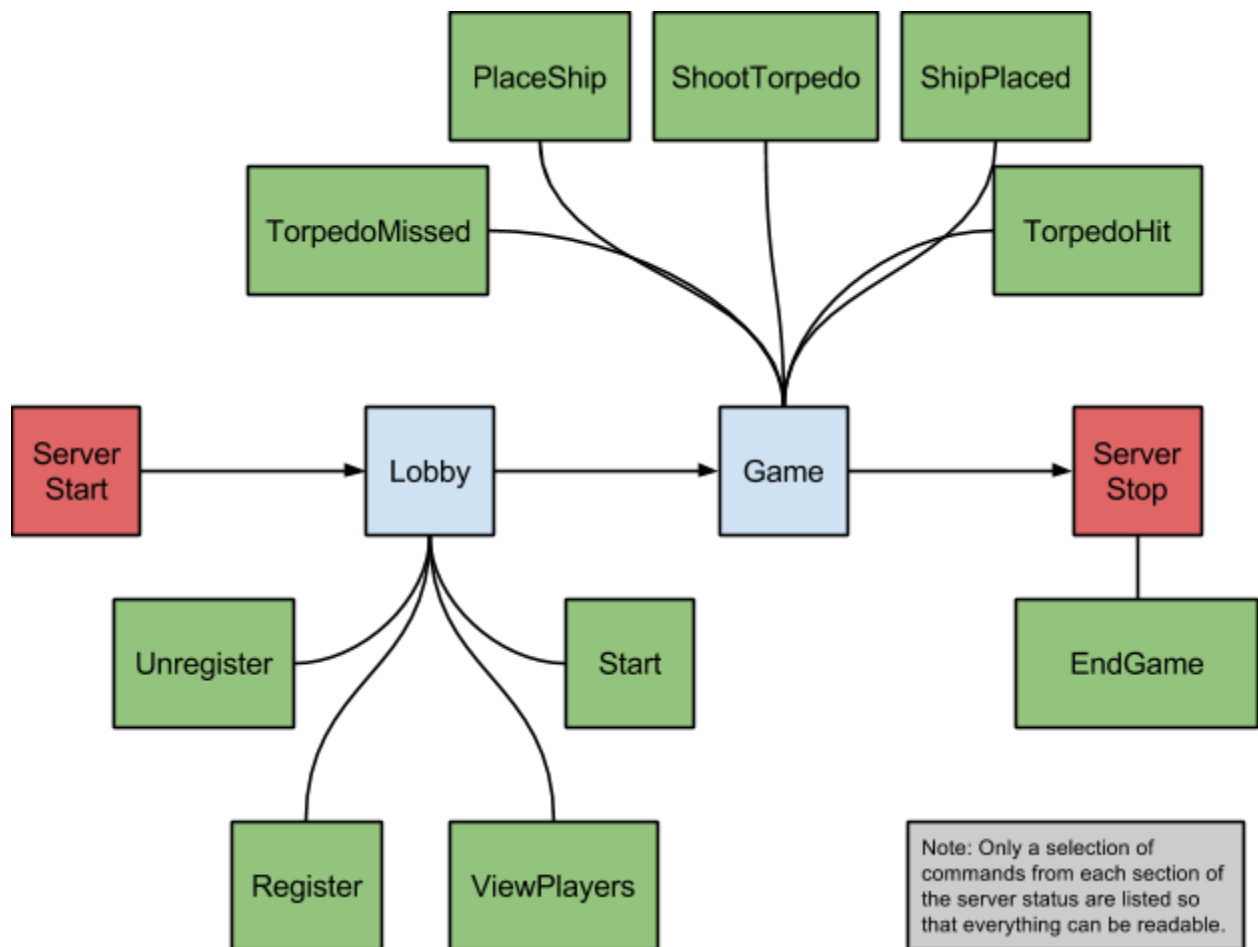
Global

KillServer

Command	KillServer
Who	Client
Status	Global
Description	Closes all player connections and terminates the server

RestartServer

Command	RESTARTSERVER
Who	Client
Status	Global
Description	Closes all player connections and restarts the server

Lobby

Register

Command	REGISTER
Who	Client
Status	Lobby
Description	Attempts to register the player with the server
Response	- REGISTERED - REGFAIL

Registered

Command	REGISTERED
Who	Server
Status	Lobby
Description	Announces client registration success
Parameters	1. Player ID 2. Player Name 3. Player Colour

RegFail

Command	REGFAIL
Who	Server
Status	Lobby
Description	Announces client registration error
Parameters	1. Reason why registration was not successful

ViewPlayers

Command	VIEWPLAYERS
Who	Client
Status	Lobby
Description	Asks the server for a list of the currently registered players
Response	● PlayersList

PlayersList

Command	PLAYERSLIST
Who	Server
Status	Lobby
Description	Lists the players registered to the server
Parameters	A list of all of the player

Start

Command	START
Who	Client
Status	Lobby
Description	When in the lobby state, start asks the server to start a new game with the participants in the lobby
Response	● GameStarted

GameStarted

Command	GAMESTARTED
Who	Server
Status	Lobby
Description	Announces to all players that the game is now starting

Game

PlaceShip

Command	PLACESHIP
Who	Client
Status	Game
Description	Asks the server to place a ship at the given location
Parameters	1. Top left ship X coordinate 2. Top left ship Y coordinate 3. Ship angle 4. Ship length
Response	● ShipPlaced ● CantPlaceShip

CantPlaceShip

Command	CANTPLACESHIP
Who	Server
Status	Game
Description	Reponds to the player that they cannot place a ship there
Parameters	1. Reason

ShipPlaced

Command	SHIPPLACED
Who	Server

Status	Game
Description	Announces to all players that a new ship has been placed on the game grid
Parameters	2. Top left ship X coordinate 3. Top left ship Y coordinate 4. Ship length

ShootTorpedo

Command	SHOOTTORPEDO
Who	Client
Status	Game
Description	Asks the server to position a torpedo at the given location
Parameters	1. Player ID 2. X coordinate 3. Y coordinate
Response	● TorpedoHit ● TorpedoMissed

TorpedoHit

Command	TORPEDOHIT
Who	Server
Status	Game
Description	Announces to all players that a torpedo has hit a player's ship
Parameters	1. X coordinate 2. Y coordinate 3. Ship owner's player ID 4. Torpedo owner's player ID

TorpedoMissed

Command	TORPEDOMISSED
Who	Server
Status	Game
Description	Announces to all players that the torpedo missed
Parameters	5. X coordinate 6. Y coordinate 7. Ship owner's player ID 8. Torpedo owner's player ID

GameFinished

Command	GameFinished
Who	Server
Status	Game
Description	Announces to all players that the game has completed
Parameters	1. Winning player ID