Grant Christie 51441153

CS3524 Assessment

Criteria Met

CGSD:
- User can move in at least one direction.
- Information is displayed about change of location.

CGSC:
- User can move in a any direction in the MUD world.
- User can see other players in their current location in the MUD world.
- User can pickup valid items in the MUD world.

CGSB:
- More than one MUD world can exist.
- User can see a list of active MUD worlds, and select one to join.

CGSA5:
- MUDs can be created at runtime.
- Max number of MUDs is 5.
- Max number of players is 5 per MUD.

Additonal Features:
- Handling of clients joining/leaving. When a player joins they are added to a player list and when they exit the game they are removed from the list, allowing another user to join in their place.
- Users cannot have the same name and MUDs cannot have the same name.
- Help command that displays instructions to the user.

All functions created within this project have been commented explaining their functionalities.

How to Execute

1.   Build it with 'make'

2.   Open a terminal and change directory to the project folder.
        Run 'make'
        Start rmiregisty: 'rmiregistry XXXXX' XXXXX = (50010-50019)

3.   Open Second Terminal and change directory to the project folder.
        Run MudServerMainline 'java cs3524.solutions.mud.MudServerMainline XXXXX
        YYYYY' YYYYY = other value from (50010-50019)

4.   Open Third Terminal and change directory to the project folder.
        Run MudClient 'java cs3524.solutions.mud.MudClient (<yourmachine-name> or localhost)
XXXXX'

Repeat step 3 to add different users to the game.

Grant Christie 51441153

<u>Client Commands</u>

When a new client connects to the server they are shown a list of active MUD worlds and prompted to choose one. After this they are prompted to enter a username before being allowed to enter the MUD. The game then starts, displaying the information about the user's starting location.

At this point the following commands are available to the user:
- exit – Ends the game.
- help – Provides information to the user about what commands are available.
- [north, east, south, west] – Entering any of these directions will move the user if valid.
- pickup <thing> - Pickup an item with name <thing>
- players – This shows the list of players at the user's current location in the MUD.
- where – This shows information about the user's current location in the MUD.

If the user trys to enter in any other command a message will be displayed and their current location will be displayed again.

<u>Server Commands</u>

Once the server is running it will display the following message informing the user how to create a new mud.

create <name> <edgesfile> <messagesfile> <thingsfile>

Executing this command will create a new MUD world with the name specified in <name> with the information detailed in the following three file components. An example of this command would be:

create ReportMud wood.edg wood.msg wood.thg

If the creation is successful the user will be given a message informing them their mud <name> has been created. If not successful a message will be displayed informing the user their mud cannot be created. There is a limit of 5 MUDs at any time.

<u>Limitations</u>
- Cannot handle clients aborting, must type "exit" to leave properly.
- Players cannot drop or move items after picking them up.
- Players cannot communicate with each other.
- Cannot validate mud creation. Therefore mud could be created with incomplete files. This is why only the server can create muds and not clients.