Remote Shell

1.0

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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ss.shell.utils.BuiltIns 8
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Chapter 3

Class Documentation

3.1 ss.shell.BuiltInProcess Class Reference

Public Member Functions

- **BuiltInProcess** (String username, String cwd, UserTypes type, ShellType shellType)

  Constructor for the class.
- **BuiltInProcess** (String username, String cwd, UserTypes type, boolean isLoggedIn, ShellType shellType)

  Override constructor for the class.
- String **getUsername** ()

  Gets the username of the current user.
- String **getCWD** ()

  Gets the cwd of the current user.
- UserTypes **getUserType** ()

  Gets the user type of the current user.
- boolean **getIsLoggedIn** ()

  Gets the boolean of if the user is logged in or not.
- String **getLogsOutput** ()

  Gets the output logs object.
- void **execute** (String[ ] command)

  Execute the correct command based on command.

3.1.1 Constructor & Destructor Documentation

3.1.1.1 BuiltInProcess() [1/2]

```
ss.shell.BuiltInProcess.BuiltInProcess (
            String username,
            String cwd,
            UserTypes type,
            ShellType shellType )
```

Constructor for the class.

Parameters

username	The current username. "guest" is default.
cwd	The current working directory. Home path is default.
type	The current type of the user. "standard" is default.
shellType	The type of shell being run. "remote" or "local".

3.1.1.2 BuiltInProcess() [2/2]

```
ss.shell.BuiltInProcess.BuiltInProcess (
            String username,
            String cwd,
            UserTypes type,
            boolean isLoggedIn,
            ShellType shellType )
```

Override constructor for the class.

Parameters

username	The current username. "guest" is default.
cwd	The current working directory. Home path is default.
type	The current type of the user. "standard" is default.
isLoggedIn	If the user is logged in or not.
shellType	The type of shell being run. "remote" or "local".

3.1.2 Member Function Documentation

3.1.2.1 getCWD()

```
String ss.shell.BuiltInProcess.getCWD ( )
```

Gets the cwd of the current user.

Returns

cwd of the current user.

3.1.2.2 getIsLoggedIn()

```
boolean ss.shell.BuiltInProcess.getIsLoggedIn ( )
```

Gets the boolean of if the user is logged in or not.

Returns

the boolean of if the user is logged in or not.

3.1.2.3 getLogsOutput()

```
String ss.shell.BuiltInProcess.getLogsOutput ( )
```

Gets the output logs object.

Returns

the output logs object.

3.1.2.4 getUsername()

```
String ss.shell.BuiltInProcess.getUsername ( )
```

Gets the username of the current user.

Returns

username of the current user.

3.1.2.5 getUserType()

```
UserTypes ss.shell.BuiltInProcess.getUserType ( )
```

Gets the user type of the current user.

Returns

user type of the current user.

The documentation for this class was generated from the following file:

- Shell/src/main/java/ss/shell/BuiltInProcess.java

3.2 ss.shell.utils.BuiltIns Class Reference

Classes

- enum **ShellType**

  The different types of shells that can be run on this program.
- enum **UserTypes**

  The different types of user groups.

Static Public Member Functions

- static boolean **isBuiltIn** (String command)

  Check if a command is a built-in command.
- static boolean **isProcessBuilder** (String command)

  Check if a command is a process builder command.

Static Public Attributes

- static final String **SUPER** = "super"

  Built in commands.
- static final String **ADDUSER** = "adduser"
- static final String **DELUSER** = "deluser"
- static final String **LISTUSERS** = "listusers"
- static final String **CHPASS** = "chpass"
- static final String **CHUSERTYPE** = "chusertype"
- static final String **LOGIN** = "login"
- static final String **LOGOUT** = "logout"
- static final String **WHOAMI** = "whoami"
- static final String **MOVE** = "move"
- static final String **COPY** = "copy"
- static final String **CD** = "cd"
- static final String **SHOWDIR** = "showdir"
- static final String **HELP** = "help"
- static final String **HISTORY** = "history"
- static final String[ ] **COMMANDS** = { **SUPER**, ADDUSER, DELUSER, LISTUSERS, CHPASS, CHUSERT↩ YPE, LOGIN, LOGOUT, WHOAMI, MOVE, COPY, CD, SHOWDIR, HELP, HISTORY}
- static final String[ ] **DESCS** = {SUPER_DESC, ADDUSER_DESC, DELUSER_DESC, LISTUSERS_DESC, CHPASS_DESC, CHUSERTYPE_DESC, LOGIN_DESC, LOGOUT_DESC, WHOAMI_DESC, MOVE_DE↩ SC, COPY_DESC, CD_DESC, SHOWDIR_DESC, HELP_DESC, HISTORY_DESC}
- static final String[ ] **PB_COMMANDS** = {PB_LS, PB_CP, PB_MV, PB_MKDIR, PB_RMDIR, PB_HELP, PB↩ _PWD, PB_PS, PB_WHICH}
- static final String[ ] **PB_DESCS** = {PB_LS_DESC, PB_CP_DESC, PB_MV_DESC, PB_MKDIR_DESC, P↩ B_RMDIR_DESC, PB_HELP_DESC, PB_PWD_DESC, PB_PS_DESC, PB_WHICH_DESC}
- static final String **HOME_PATH** = "/home/ntu-admin/Documents/SS/Files/"

3.2.1 Member Function Documentation

3.2.1.1 isBuiltIn()

```
static boolean ss.shell.utils.BuiltIns.isBuiltIn (
            String command )  [static]
```

Check if a command is a built-in command.

Parameters

command	Command to check.

Returns

True if command is a built-in command.

3.2.1.2 isProcessBuilder()

```
static boolean ss.shell.utils.BuiltIns.isProcessBuilder (
            String command )  [static]
```

Check if a command is a process builder command.

Parameters

command	Command to check.

Returns

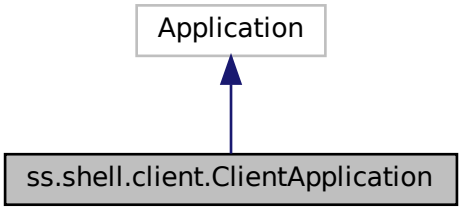
True if command is a process builder command.

The documentation for this class was generated from the following file:

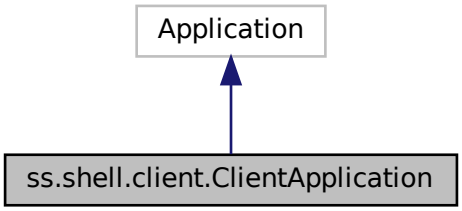
- Shell/src/main/java/ss/shell/utils/BuiltIns.java

3.3 ss.shell.client.ClientApplication Class Reference

Inheritance diagram for ss.shell.client.ClientApplication:



Collaboration diagram for ss.shell.client.ClientApplication:



Public Member Functions

- void **start** (Stage stage) throws IOException

Static Public Member Functions

- static void **main** (String[ ] args)

The documentation for this class was generated from the following file:

- Shell/src/main/java/ss/shell/client/ClientApplication.java

3.4 ss.shell.client.ClientApplicationController Class Reference

Protected Member Functions

- void **onHelloButtonClick** ()

The documentation for this class was generated from the following file:

- Shell/src/main/java/ss/shell/client/ClientApplicationController.java

3.5 ss.shell.utils.Filesystem Class Reference

Public Member Functions

- **Filesystem** (String username, String password, UserTypes type, ShellType shellType)

  *Constructor for the **Filesystem** (p. 11) class.*
- **Filesystem** (String cwd)

  *Override constructor for the **Filesystem** (p. 11) class.*
- boolean **login** ()

  Logging in needs to check if the user has a directory and if they do, check if the password matches the user info file.
- void **createUser** ()

  Creating a user needs to check if the user has a directory.
- void **deleteUser** ()

  Deletes the user directory and all of its contents.
- String **getPassword** ()

  Gets the current password of the user.
- BuiltIns.UserTypes **getUserType** ()

  Gets the current group type of the user.
- boolean **changePassword** (String newPassword)

  Change the password for the user.
- boolean **changeUserType** (BuiltIns.UserTypes newType)

  Change the group type for the user.
- boolean **hasDirectory** ()

  Check if the user has a directory already.
- String[ ] **getDirsInUserDir** ()

  Gets the directories in the user's directory.

3.5.1 Constructor & Destructor Documentation

3.5.1.1 Filesystem() [1/2]

```
ss.shell.utils.Filesystem.Filesystem (
            String username,
            String password,
            UserTypes type,
            ShellType shellType )
```

Constructor for the **Filesystem** (p. 11) class.

Parameters

username	The username of the user.
password	The password of the user (hashed).
type	The group type of the user.
shellType	The type of shell being run for.

3.5.1.2 Filesystem() [2/2]

```
ss.shell.utils.Filesystem.Filesystem (
            String cwd )
```

Override constructor for the **Filesystem** (p. 11) class.

Parameters

cwd	The current working directory of the user.

3.5.2 Member Function Documentation

3.5.2.1 changePassword()

```
boolean ss.shell.utils.Filesystem.changePassword (
            String newPassword )
```

Change the password for the user.

Parameters

newPassword	the new password for the user.

Returns

true if the password was changed successfully.

3.5.2.2 changeUserType()

```
boolean ss.shell.utils.Filesystem.changeUserType (
            BuiltIns.UserTypes newType )
```

Change the group type for the user.

Parameters

newType	the new group type for the user.

Returns

true if the change was successful.

3.5.2.3 deleteUser()

```
void ss.shell.utils.Filesystem.deleteUser ( )
```

Deletes the user directory and all of its contents.

Also deletes the user info file.

3.5.2.4 getDirsInUserDir()

```
String [] ss.shell.utils.Filesystem.getDirsInUserDir ( )
```

Gets the directories in the user's directory.

Returns

list of directory names.

3.5.2.5 getPassword()

```
String ss.shell.utils.Filesystem.getPassword ( )
```

Gets the current password of the user.

Returns

the current password of the user.

3.5.2.6 getUserType()

```
BuiltIns.UserTypes ss.shell.utils.Filesystem.getUserType ( )
```

Gets the current group type of the user.

Returns

the current group type of the user.

3.5.2.7 hasDirectory()

```
boolean ss.shell.utils.Filesystem.hasDirectory ( )
```

Check if the user has a directory already.

Returns

true if the user has a directory.

3.5.2.8 login()

```
boolean ss.shell.utils.Filesystem.login ( )
```

Logging in needs to check if the user has a directory and if they do, check if the password matches the user info file.

Returns

true if the user has a directory and the password matches.

The documentation for this class was generated from the following file:

- Shell/src/main/java/ss/shell/utils/Filesystem.java

3.6 ss.shell.utils.Logs.LogLevel Enum Reference

The severity level of the logs.

Public Attributes

- **INFO**
- **WARNING**
- **ERROR**

3.6.1 Detailed Description

The severity level of the logs.

The documentation for this enum was generated from the following file:

- Shell/src/main/java/ss/shell/utils/Logs.java

3.7 ss.shell.utils.Logs Class Reference

Classes

- enum **LogLevel**

  The severity level of the logs.
- enum **Store**

  Whether to store the logged output to the logs file.

Public Member Functions

- void **outputPrompt** (String prompt, **Store** store)

  Add the HTML prompt to the total output.
- void **outputShort** (String output, **Store** store)

  Add the HTML short to the total output.
- void **outputInfo** (String output, **Store** store, **LogLevel** level)

  Add the HTML info to the total output.
- String **getOutputTotal** ()

  Get the total output HTML.
- void **addToOutputTotal** (String output)

  Directly add extra text to the total output string.

Static Public Member Functions

- static void **printLine** (String text, **Store** store)

  *Prints a line (with
) of text and stores output in the logs file.*
- static void **printLine** (String text, **LogLevel** level)

  *Prints a line (with
) of text and stores output in the logs file.*
- static void **print** (String text, **Store** store)

  Prints a line of text and stores output in the logs file.
- static void **logToFile** (String text)

  Stores text in the logs file with a date and time stamp.
- static void **logToFile** (String[ ] text)

  Stores text in the logs file with a date and time stamp.

3.7.1 Member Function Documentation

3.7.1.1 addToOutputTotal()

```
void ss.shell.utils.Logs.addToOutputTotal (
            String output )
```

Directly add extra text to the total output string.

Parameters

output	Text to add.

3.7.1.2 getOutputTotal()

```
String ss.shell.utils.Logs.getOutputTotal ( )
```

Get the total output HTML.

Returns

The whole HTML string to output.

3.7.1.3 logToFile() [1/2]

```
static void ss.shell.utils.Logs.logToFile (
            String text )  [static]
```

Stores text in the logs file with a date and time stamp.

Parameters

text	Input text.

3.7.1.4 logToFile() [2/2]

```
static void ss.shell.utils.Logs.logToFile (
            String[] text )  [static]
```

Stores text in the logs file with a date and time stamp.

Parameters

text	Input text.

3.7.1.5 outputInfo()

```
void ss.shell.utils.Logs.outputInfo (
```

```
            String output,
             Store store,
             LogLevel level )
```

Add the HTML info to the total output.

Parameters

output	Output.
store	Whether to store the output to logs.

3.7.1.6 outputPrompt()

```
void ss.shell.utils.Logs.outputPrompt (
            String prompt,
             Store store )
```

Add the HTML prompt to the total output.

Parameters

prompt	Prompt to output.
store	Whether to store the output to logs.

3.7.1.7 outputShort()

```
void ss.shell.utils.Logs.outputShort (
            String output,
             Store store )
```

Add the HTML short to the total output.

Parameters

output	Output.
store	Whether to store the output to logs.

3.7.1.8 print()

```
static void ss.shell.utils.Logs.print (
            String text,
             Store store )  [static]
```

Prints a line of text and stores output in the logs file.

Parameters

text	Input text.
store	**Store** (p. 23) output in logs file.

3.7.1.9 printLine() [1/2]

```
static void ss.shell.utils.Logs.printLine (
             String text,
              LogLevel level )  [static]
```

Prints a line (with
) of text and stores output in the logs file.

Parameters

text	Input text.
level	Log level.

3.7.1.10 printLine() [2/2]

```
static void ss.shell.utils.Logs.printLine (
             String text,
              Store store )  [static]
```

Prints a line (with
) of text and stores output in the logs file.

Parameters

text	Input text.
store	Tell it not to store output in logs file.

The documentation for this class was generated from the following file:

- Shell/src/main/java/ss/shell/utils/Logs.java

3.8 ss.shell.Shell Class Reference

Public Member Functions

- **Shell** (String input, String username, String cwd, UserTypes type, boolean isLoggedIn)

Constructor for the class.

- void **prompt** ()

  Constructor method for the class.

- boolean **getDoExit** ()

  Gets the exit status.

- String **getUsername** ()

  Gets the username of the current user.

- String **getCWD** ()

  Gets the cwd of the current user.

- UserTypes **getUserType** ()

  Gets the user type of the current user.

- boolean **getIsLoggedIn** ()

  Gets the boolean of if the user is logged in or not.

- String **getOutput** ()

  Gets the total output of all the html from the logs object.

3.8.1 Constructor & Destructor Documentation

3.8.1.1 Shell()

```
ss.shell.Shell.Shell (
            String input,
            String username,
            String cwd,
            UserTypes type,
            boolean isLoggedIn )
```

Constructor for the class.

Parameters

input	The user input from the form.
username	The current username. "guest" is default.
cwd	The current working directory. Home path is default.
type	The current type of the user. "standard" is default.
isLoggedIn	If the user is logged in or not.

3.8.2 Member Function Documentation

3.8.2.1 getCWD()

```
String ss.shell.Shell.getCWD ( )
```

Gets the cwd of the current user.

Returns

cwd of the current user.

3.8.2.2 getDoExit()

```
boolean ss.shell.Shell.getDoExit ( )
```

Gets the exit status.

Returns

if the user has entered an exit command.

3.8.2.3 getIsLoggedIn()

```
boolean ss.shell.Shell.getIsLoggedIn ( )
```

Gets the boolean of if the user is logged in or not.

Returns

the boolean of if the user is logged in or not.

3.8.2.4 getOutput()

```
String ss.shell.Shell.getOutput ( )
```

Gets the total output of all the html from the logs object.

Returns

the output html.

3.8.2.5 getUsername()

```
String ss.shell.Shell.getUsername ( )
```

Gets the username of the current user.

Returns

username of the current user.

3.8.2.6 getUserType()

```
UserTypes ss.shell.Shell.getUserType ( )
```

Gets the user type of the current user.

Returns

user type of the current user.

3.8.2.7 prompt()

```
void ss.shell.Shell.prompt ( )
```

Constructor method for the class.

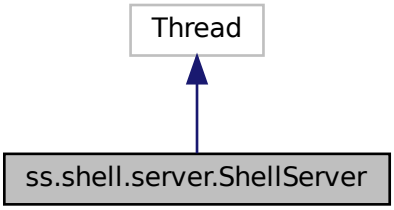
Handles all the logic to do with picking the command type.

The documentation for this class was generated from the following file:

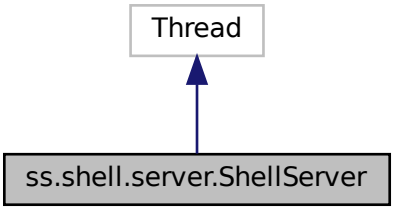
- Shell/src/main/java/ss/shell/Shell.java

3.9 ss.shell.server.ShellServer Class Reference

Inheritance diagram for ss.shell.server.ShellServer:



Collaboration diagram for ss.shell.server.ShellServer:



Public Member Functions

- void **start** ()
  Start the server.

Static Public Member Functions

- static void **main** (String[ ] args)

3.9.1 Detailed Description

Author

pedro
Joshua

The documentation for this class was generated from the following file:

- Shell/src/main/java/ss/shell/server/ShellServer.java

3.10 ss.shell.utils.BuiltIns.ShellType Enum Reference

The different types of shells that can be run on this program.

Public Attributes

- **LOCAL**
- **REMOTE**

3.10.1 Detailed Description

The different types of shells that can be run on this program.

The documentation for this enum was generated from the following file:

- Shell/src/main/java/ss/shell/utils/BuiltIns.java

3.11 ss.shell.utils.Logs.Store Enum Reference

Whether to store the logged output to the logs file.

Public Attributes

- **YES**
- **NO**

3.11.1 Detailed Description

Whether to store the logged output to the logs file.

The documentation for this enum was generated from the following file:

- Shell/src/main/java/ss/shell/utils/Logs.java

3.12 ss.shell.utils.BuiltIns.UserTypes Enum Reference

The different types of user groups.

Public Attributes

- **STANDARD**
- **SUPERUSER**

3.12.1 Detailed Description

The different types of user groups.

The documentation for this enum was generated from the following file:

- Shell/src/main/java/ss/shell/utils/BuiltIns.java

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