Command QUIT, LOGIN, LOGOUT, CREATE, DELETE, POST, SEARCH, RENT -_commandString: final String - <u>permissions</u>: State LinkedHashTable<Command, UserType[]> #execute(inoutUser, inoutDataAccess, in - Command() Scanner):User + toString() +showBanner(): void # validateUser() + getUserPermissions() DeleteUser CreateUser + execute(inout User, inout DataAccess, + execute(inout User, inout DataAccess, in Scanner): User in Scanner): User Login Logout + execute(out User, inout DataAccess, in + execute(inout User, inout DataAccess, Scanner): User in Scanner): User PostListing RentListing + execute(inout User, inout DataAccess, + execute(inout User, inout DataAccess, in Scanner): User in Scanner): User SearchListing + execute(inout User, inout DataAccess, in Scanner): User

Main

+main(in String[]): void

Log

- _transactionString: final String
- _user: final User
- _listing: final Listing
- + Log(in TransactionCode, in User)
- + Log(in TransactionCode, in User, in Listing)
- + toString() : String

<<Enumeration>

TransactionCode

END_OF_SESSION, CREATE, DELETE, POST, SEARCH, RENT

- _code: String
- TransactionCode(in String)
- toString(): String

Listing

- _rentalUnitID: final String
- _owner: final User
- _city: final String
- _rentalPrice: final unsigned double
- _ numberOfRooms: final unsigned int
- _ rentedFlag: boolean
- _ nightsRented: unsigned int
- + getRentalUnitID(): String
- + getOwner(): String
- + getCity(): String
- + getRentalPrice(): unsigned double
- + getNumberOfRooms(): unsigned int
- + isRented(): Boolean
- + getNightsRented: unsigned int
- + <u>isValidRentalID</u>(in String): Boolean
- + <u>isValidCity</u>(in String): Boolean
- + <u>isValidRentalPrice</u>(in double): Boolean
- + <u>isValidNumberOfRooms</u>(in int): Boolean
- + <u>isValidNightsRented</u>(in int): Boolean

DataAccess

- _cachedUsers: final ArrayList<User>
- -_cachedListings: final ArrayList<Listing>
- _sessionLogs: final ArrayList<Log>
- _newListings: final ArrayList<Listing>
- _usersLocation: final String
- _listingsLocation: final String
- _transactionFileLocation: final String
- +DataAccess()
- +DataAccess(in String, in String, in String)
- + getUser(in String): User
- + getListing(in String): Listing
- + addUser(in User): void
- + addListing(in Listing) :void
- + addLog(in Log): void
- + commitNewListings(): void
- +listingExists(in String): Boolean
- + userExists(in String): Boolean
- + isLoaded(): Boolean
- + loadUsers(): void
- + loadListings(): void
- + writeDailyTransactionFile(): void

User

- _username: final String
- userType: final UserType
- + User(in String, in UserType)
- + getUsername(): String
- + getUserType(): String
- + <u>isValidUsername</u>(in String): Boolean

<=Enumeration>

UserType

ADMIN, FULL_STANDARD,
RENT_STANDARD, POST_STANDARD

+ <u>isValidUserType</u>(in String): Boolean