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**Voicemail System**

**System Classes:**

Caller:

* The Caller can access a phone. The caller has a user ID. The caller can dial, pick up, or hang up a phone. They can also leave a message in the mailbox through the phone.

Owner:

* The Owner has the same functionalities as the Caller, but can also play and delete messages in the mailbox

Administrator:

* The administrator has the same functionalities as the Owner but can also add and remove mailboxes.

Phone:

* The phone is used to call and store messages in the mailbox. A phone has a number and can check if it’s connected. It also can check ring count, whether you dialed, and your extension

Mailbox:

* The mailbox contains the messages left on the phone. You can play messages, record messages, and connect to the mailbox. A mailbox cannot exist without a phone.

**Class Diagram:**

Number : integer

isConnected : bool

Phone

userID : String

Caller

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Play()

Connection()

Record()

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1

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1

1

1

Messages : String

Mailbox

getRingCount()

getDial()

getExtension()

AddMailbox()

RemoveMailbox()

PlayMessage()

DeleteMessage()

Administrator

Owner

Pickup()

Hangup()

Dial()

LeaveMessage()