

# TeXtTop

## Stage II - Requirements Modeling and Analysis

CSC 470  
Dr. Depasquale  
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Dan Daly  
Derek Duchesne  
Steven Kolln  
Dan Seminara

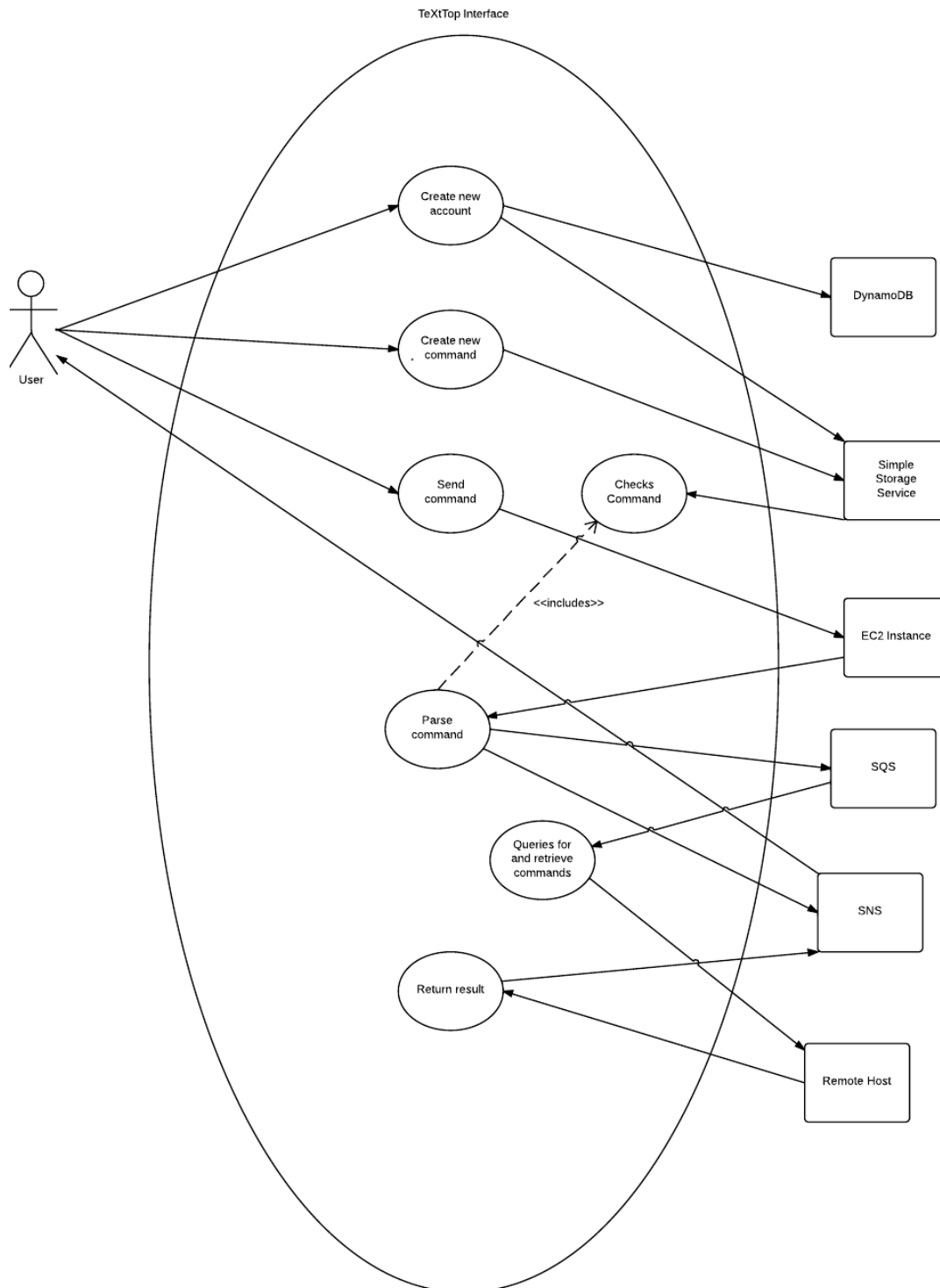
**Legal Issues:**

We will specify in our user agreement that we are not responsible for any lawbreaking scripts written by end-users. Since we are giving users the ability to make any of their Python scripts compatible with TeXtTop, they could create potentially dangerous programs. TeXtTop might also be used to gain access to and control computers behind a firewall that have the client installed. This means that users may install TeXtTop in secret on a machine in order to remotely control it later. Furthermore, our servers could essentially be used as a giant botnet to achieve malicious goals by users. If a hacker finds a way into our system they could run a malicious script on our server and run malicious commands to all users connected. This must be acknowledged in the user agreement and properly protected.

**Possible Applications:**

Anyone who has left the house only to remember that they have forgotten to do something on the computer will love this app. Users can make their own scripts, so the applications are endless. Anything that can be accomplished in Python is a possible application of TeXtTop. Someone could lock the computer, reboot it, print a document, check up on a download, take a screenshot, get disk space usage, etc.

### Use Case Diagram:



## Use Case Descriptions:

### Use Case: Registering an account

Primary Actor: End user.

Goal in context: Creating a TeXtTop account to register a user's phone number with the system.

Preconditions: The user has Internet access to navigate to TeXtTop's Github page to download the client program.

Trigger: The user wants to be able to use TeXtTop.

Scenario:

1. The user navigates to TeXtTop's Github page and downloads the client program.
2. They run the program and through the GUI type in their credentials, hit the 'Create new account with these credentials' button, and then hit 'Login' to register.

Exceptions:

1. The phone number given is already in the system. The user will be prompted to choose a different number.
2. Password is too short or long (6-18 characters).

Priority: High priority.

When available: Available as long as the user has Internet access to download the program.

Frequency of use: Presumably once per user.

Channel to actor: A browser and the desktop GUI application.

Secondary actors: N/A

### Use Case: Texting a command

Primary actor: End user.

Goal in context: Performing a command using TeXtTop remotely by texting a predefined command from their phone.

Preconditions: The command must have already been created by the user or have been a predefined command.

Trigger: The user is away from their computer and wants to control an aspect of their machine remotely using our service.

Scenario:

1. On their phone, the user locates TeXtTop's email address, which they presumably would already have added to their phone's contacts.
2. The user texts a predefined command to that email address.

Exceptions:

1. The command the user entered was entered incorrectly or that command does not

exist (in which case the user will be sent a text from the service that explains that the command was invalid).

Priority: High priority.

When available: Available as long as the client application is running.

Frequency of use: Frequent to infrequent; it depends on the user.

Channel to actor: The user's phone.

Secondary actors: N/A

#### Use Case: Changing preferences/adding scripts

Primary actor: End user.

Goal in context: Altering the preferences of the program using the GUI interface provided. This includes changing specific settings such as running the program when the computer starts up, as well as uploading scripts to be included in the command list for TeXtTop.

Preconditions: The user must already have the program installed on his or her system, and be registered with the service.

Trigger: The user decides that he/she wants to add a script or change preferences and clicks the 'Preferences' button.

Scenario:

1. The user creates a script that emails the contents of a file to an email address and decides to add it to TeXtTop.
2. The user doesn't want TeXtTop to run at system startup and decides that it will only start when explicitly run.

Priority: Medium Priority

When available: Whenever the client application is running.

Frequency of use: Frequent to infrequent; it depends on the user.

Channel to actor: TeXtTop's desktop GUI application.

Secondary actors: N/A

## **Mockup Descriptions:**

### Client Program Login Page:

The first thing that the user sees when running TeXtTop's GUI client is a simple login screen where they enter their phone number and password. The client is primarily used for adding new commands to the system and changing certain preferences, which is why the user needs validation when making these changes. Below the phone number and password fields are check boxes for the options 'Hide window on login' and 'auto login.' In addition, there is an 'I can't access my account' button which sends the user a text

message containing their new reset password. In addition, there's a checkbox called 'Create New Account with these Credentials' that, when checked, will create a new account when the user hits the 'Login' button.

#### Client Program Options Page:

The options page contains a window with the commands 'Hide window', 'Preferences', 'Commands', and 'Quit' that will each take them to separate pages within the window. The 'Hide window' command lets the user specify that they want the program to run in the background (that is, not displaying the window) without having to quit outright. The 'Preferences' page is a simple checklist of options that the user can configure at will. The 'Commands' page shows a list of commands as well as an 'Add' button that allows the user to add a new command, which will then show up in the list of commands once it is added. The final button, 'Quit', simply exits the program.

#### Client Program Preferences Page:

The preferences page contains a simple set of options. They are listed as follows:

- Load program on startup
- Change phone number (contains a text-entry field)
- Change password (contains a text-entry field)

Clicking on the save button below these options redefines the user's credentials in the database. If no changes are made, clicking the save button will have no effect.

#### Client Program Commands Page

The commands page will have a list of all built in commands as well as any custom commands added by the user. There will be an 'Add' button for the user to submit a script, and an 'Delete' button to modify existing scripts. When adding a script, the user enters the file path to the script he/she wants to include, and an optional description as to what the script will do. The scripts will be named by the the name of the file i.e. if the user uploads a script 'Shutdown.py' the command will be named 'Shutdown'.

Mockup Images:

TextTop

Login to our servers!

Phone Number(xxx-xxx-xxxx)

Password

☐ Hide window on login

☐ Auto Login

☐ Create new account with these credentials

LOGIN

[I can't access my account](#)

# TextTop

What would you like to do?

Hide window

Preferences

Commands

Quit



# TextTop

What would you like to do?

Change Phone Number(XXX-XXX-XXXX)

Change Password

☐ Load program on startup

Save

# TextTop

Edit your commands

☐ Shutdown

☐ Open Browser

☐ Log Off

☐ Play Song

☐ Print File

☐ Email co-workers

Add

Delete

Save