

ANLT5010 – Week 8

Assignment 1 Tutorial

SAS Studio



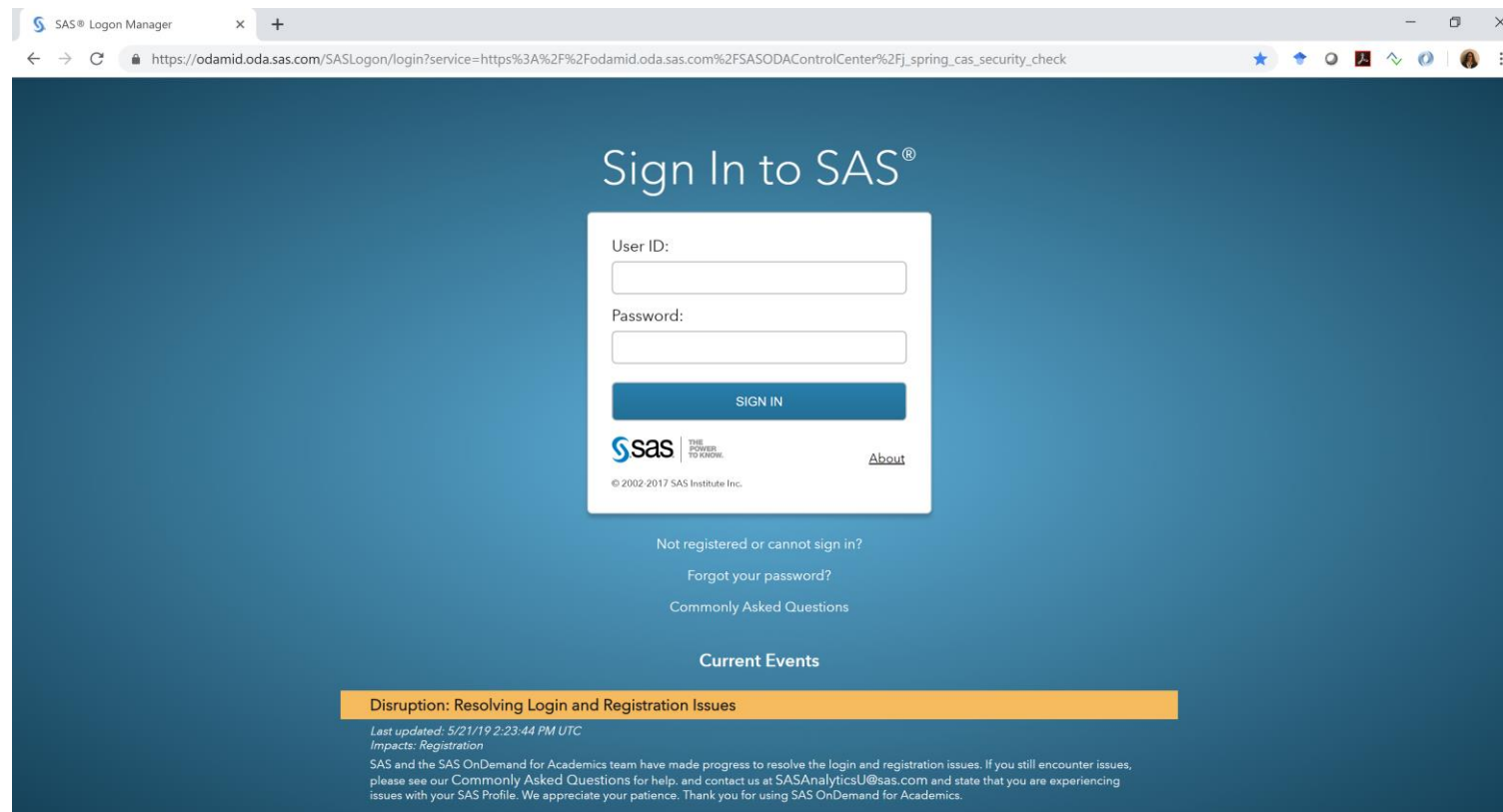
Dataset

- Download the cf_ANLT5010_W8_Height_Shoe_Size.txt.TXT file from the Week 8 Welcome announcement in the course announcements or the Week 8 assignment area.



Access the SAS OnDemand for Academics Control Center

<https://odamid.oda.sas.com/SASODAControlCenter>



The screenshot shows a web browser window with the URL https://odamid.oda.sas.com/SASLogon/login?service=https%3A%2F%2Fodamid.oda.sas.com%2FSASODAControlCenter%2Fj_spring_cas_security_check. The page has a dark blue background and features a white login form in the center. The form is titled "Sign In to SAS®" and contains two input fields: "User ID:" and "Password:". Below these fields is a blue "SIGN IN" button. Under the button is the SAS logo with the tagline "THE POWER TO KNOW." and a link to "About". At the bottom of the form, it says "© 2002-2017 SAS Institute Inc.". Below the login form, there are links for "Not registered or cannot sign in?", "Forgot your password?", and "Commonly Asked Questions". At the bottom of the page, there is a section titled "Current Events" with a yellow banner that reads "Disruption: Resolving Login and Registration Issues". Below the banner, it says "Last updated: 5/21/19 2:23:44 PM UTC" and "Impacts: Registration". The text continues: "SAS and the SAS OnDemand for Academics team have made progress to resolve the login and registration issues. If you still encounter issues, please see our Commonly Asked Questions for help, and contact us at SASAnalyticsU@sas.com and state that you are experiencing issues with your SAS Profile. We appreciate your patience. Thank you for using SAS OnDemand for Academics."



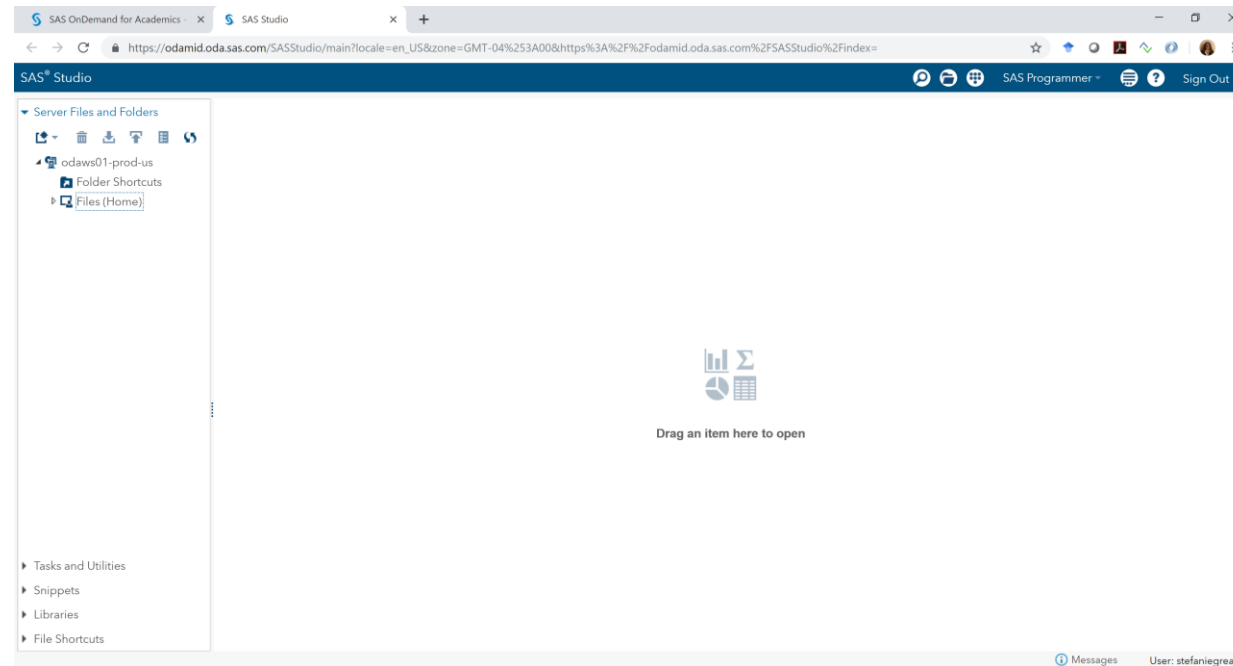
SAS OnDemand for Academics (SODA) Control Center

The screenshot displays the SAS OnDemand for Academics (SODA) Control Center dashboard. At the top right, the user is logged in as 'Stefanie Reay' from the 'United States' region. The dashboard title is 'SAS® OnDemand for Academics Dashboard'. Below the title are buttons for 'Planned Events' and 'Notices'. A message states: 'Your session in the United States region has timed out. You may now sign out to end this session as well or begin another regional session.' The main content area is divided into two columns. The left column has tabs for 'Applications', 'Enrollments', and 'Courses'. Under 'Applications', there are five items: 'SAS® Studio' (Write and run SAS code with a Web-Based SAS development environment. Actions: [Clear my saved tabs.](#)), 'SAS® Enterprise Guide®' (Deliver the power of SAS from an easy-to-use, point-and-click interface. (Download Required)), 'SAS® Enterprise Miner™' (Reveal valuable insights with powerful data mining software. (Configuration Steps Required) Actions: [Clear my project locks.](#)), 'SAS® Forecast Studio' (Generate large numbers of high-quality forecasts automatically. (Configuration Steps Required) Actions: [Manage your personal environment.](#)), and 'JMP® Software access to SAS® hosted servers' (Statistical discovery software. Users must have a copy of JMP® software. (Configuration Steps Required)). The right column has a 'Reference' section with links to 'Support Site', 'Step-by-Step Reference Guides', and 'Frequently Asked Questions'. Below this is a 'Quotas (learn more)' section showing two progress bars: 'Home Directory (22.5MB/5120MB)' at 0% and 'Course Directory (207.0MB/3072MB)' at 7%.

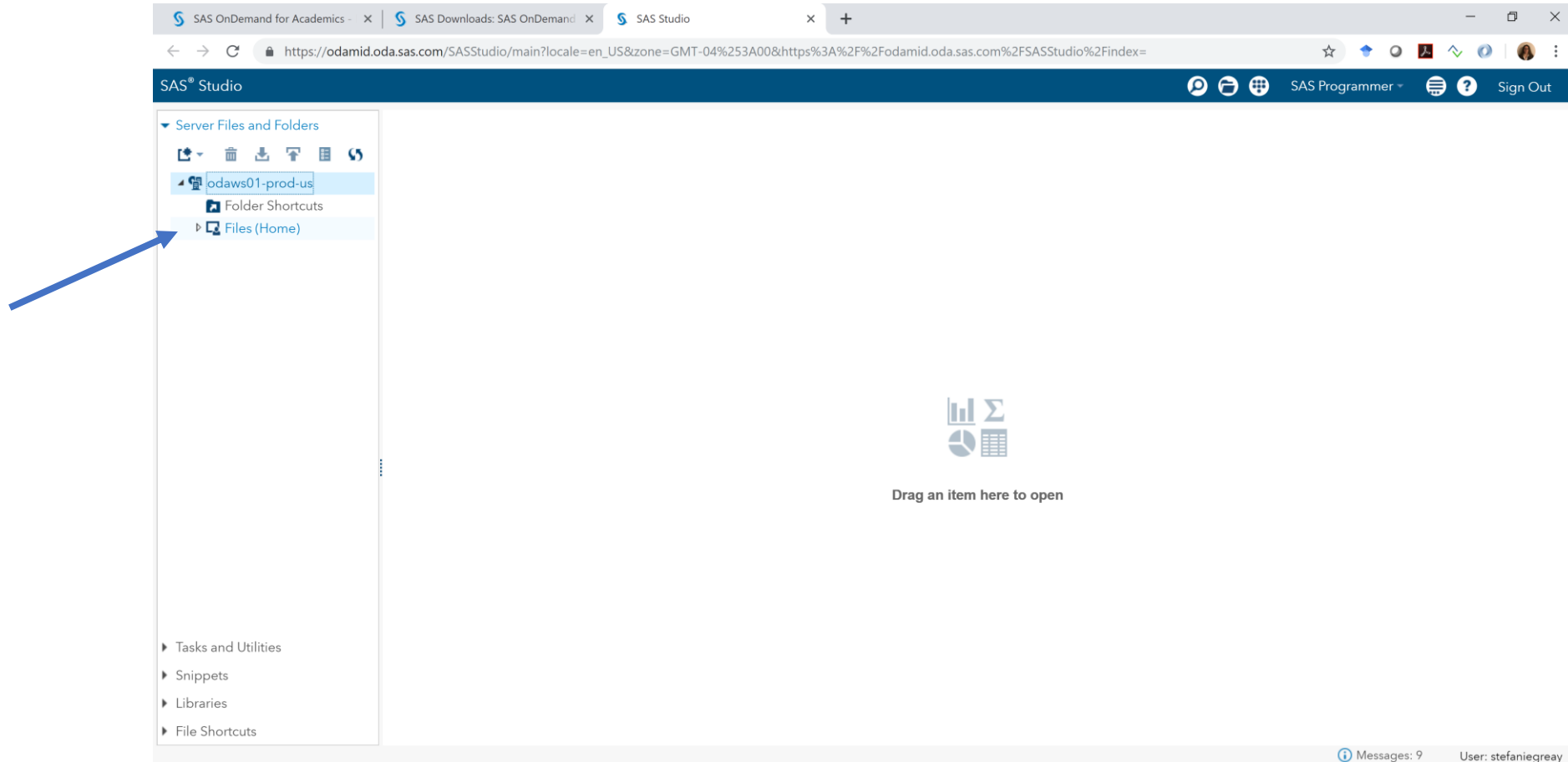


SAS Studio

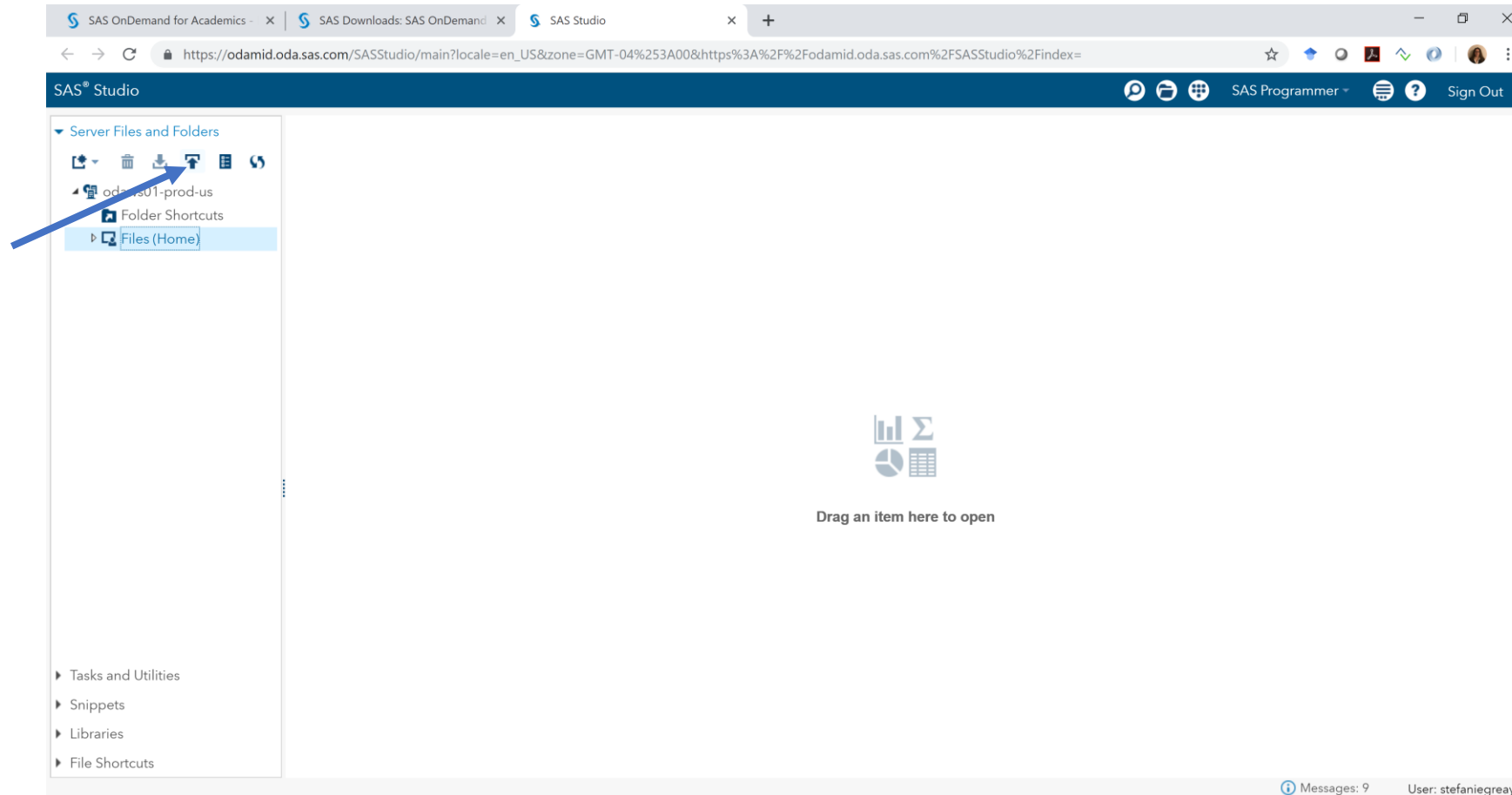
<https://odamid.oda.sas.com/SASStudio/>



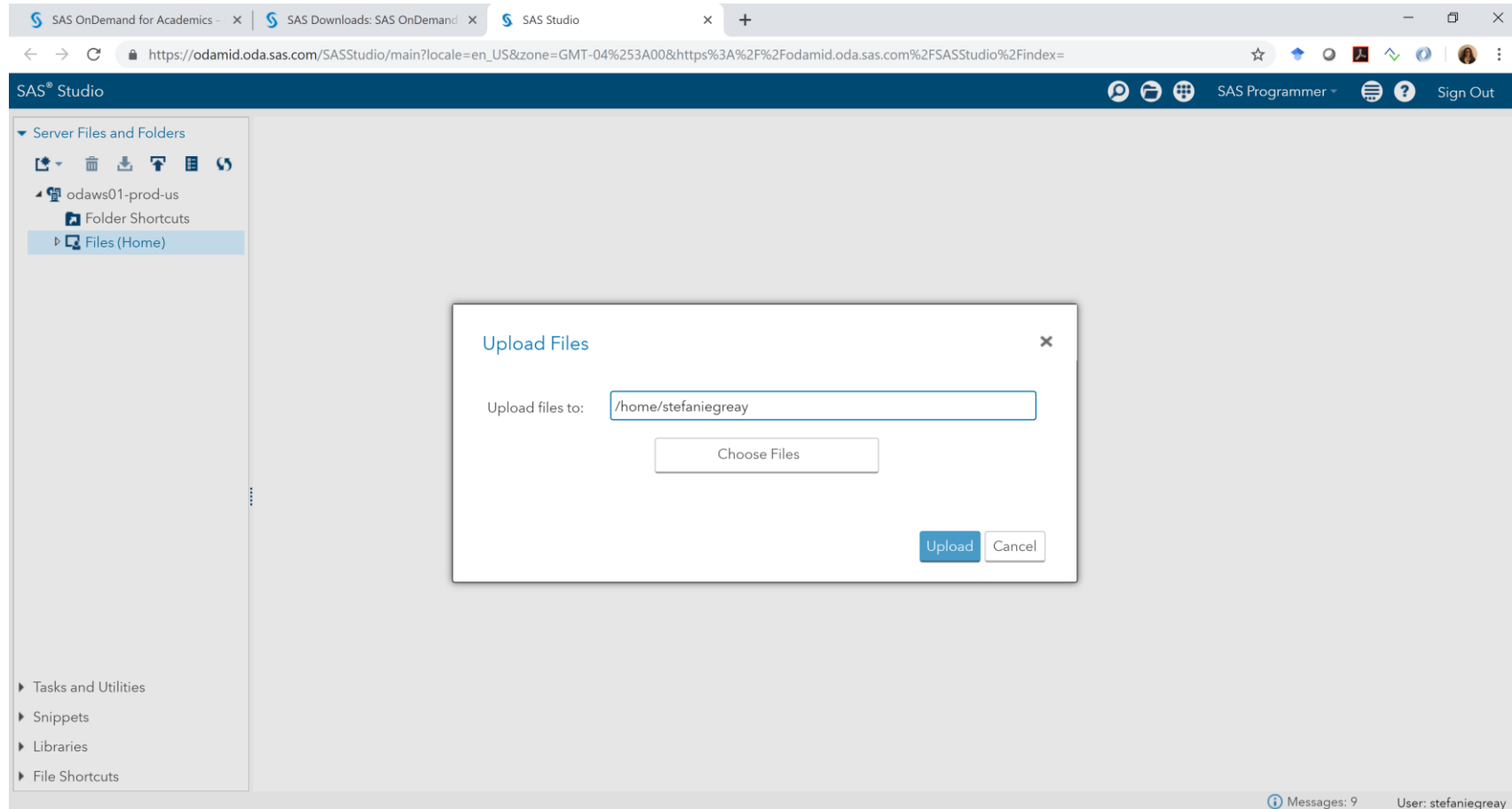
Click on Files(Home)



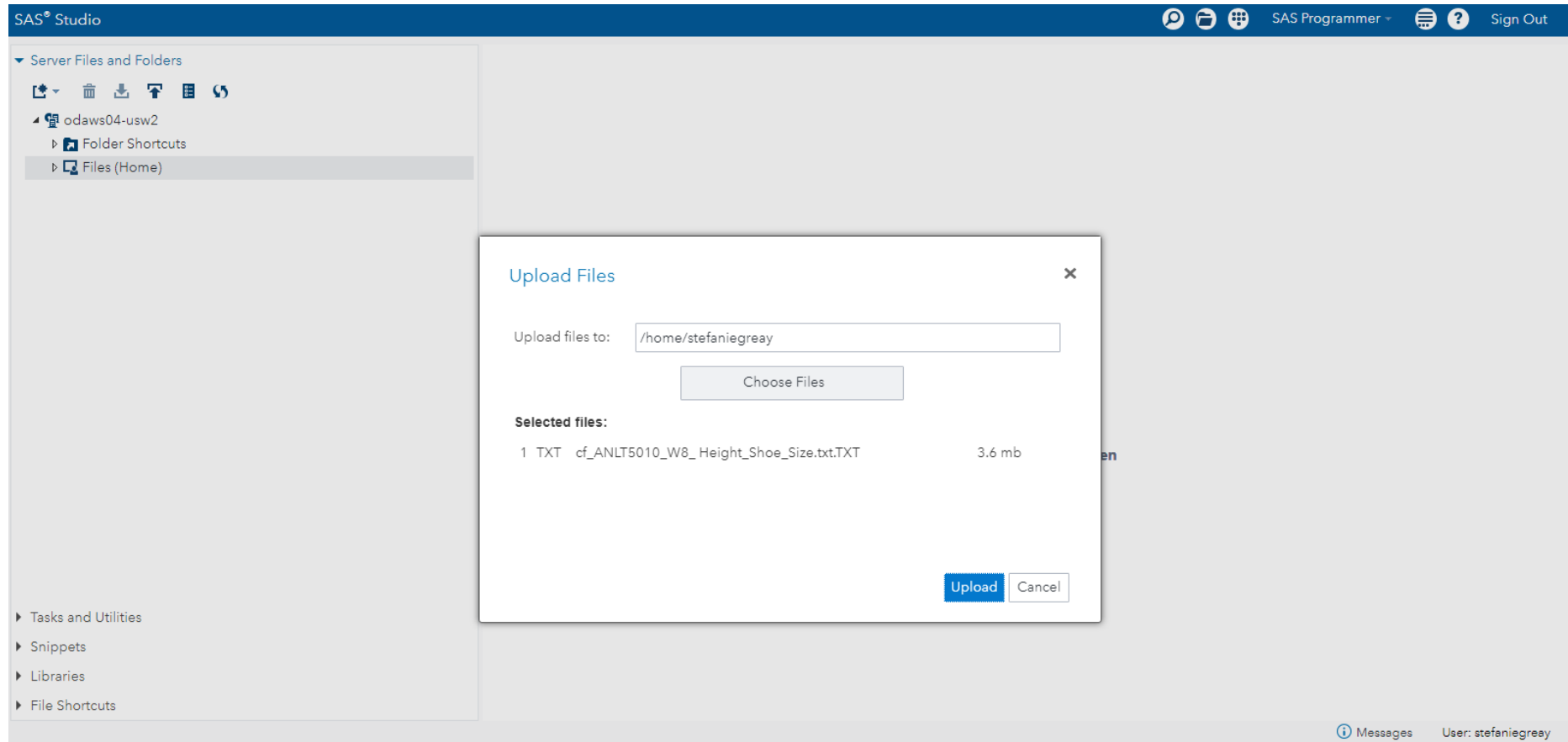
The Upload button will display in dark blue



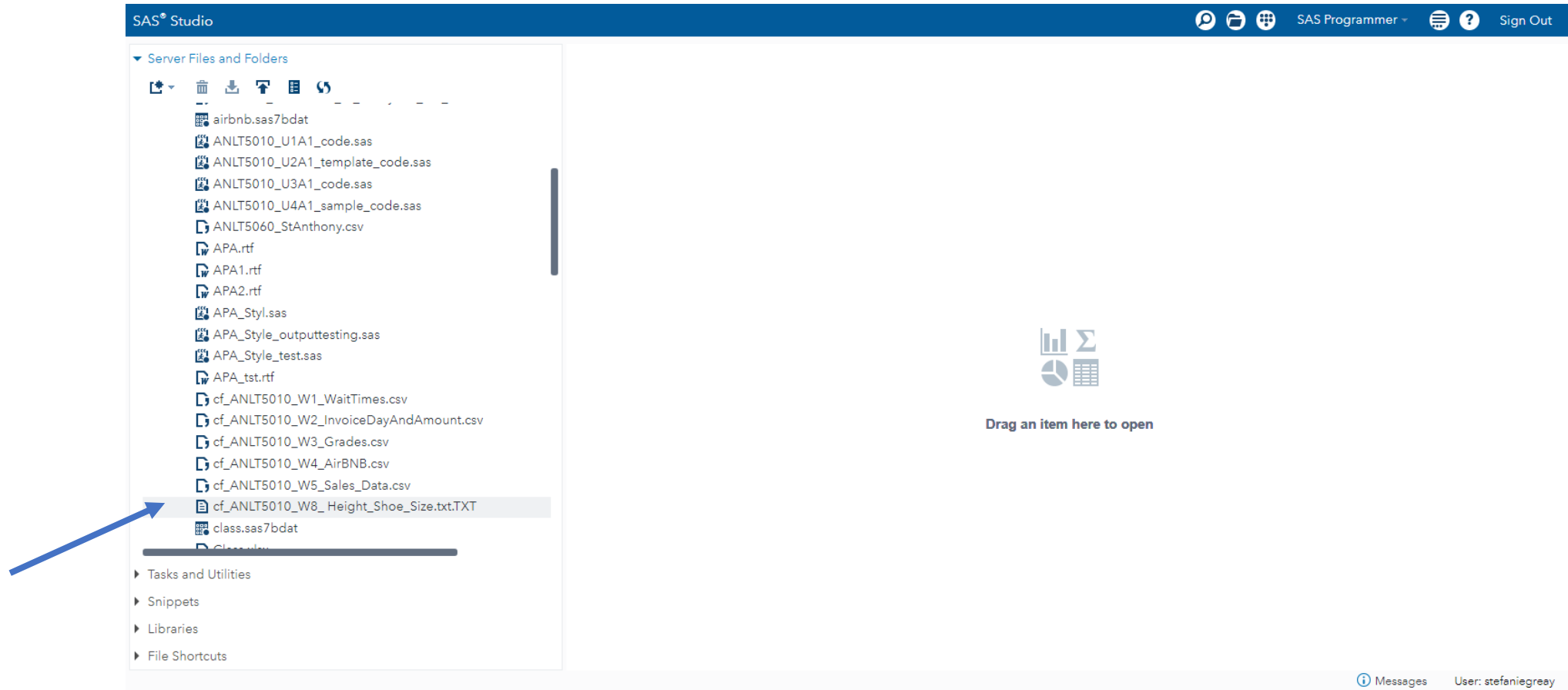
You can create a folder at this point, if you wish, or simply upload to your home directory.



Select “Choose Files” to browse your computer for the dataset you want to upload. Once the dataset has been selected, click “Upload.”



You will be able to view your files by clicking on “Files(Home)” to verify that your file successfully uploaded.



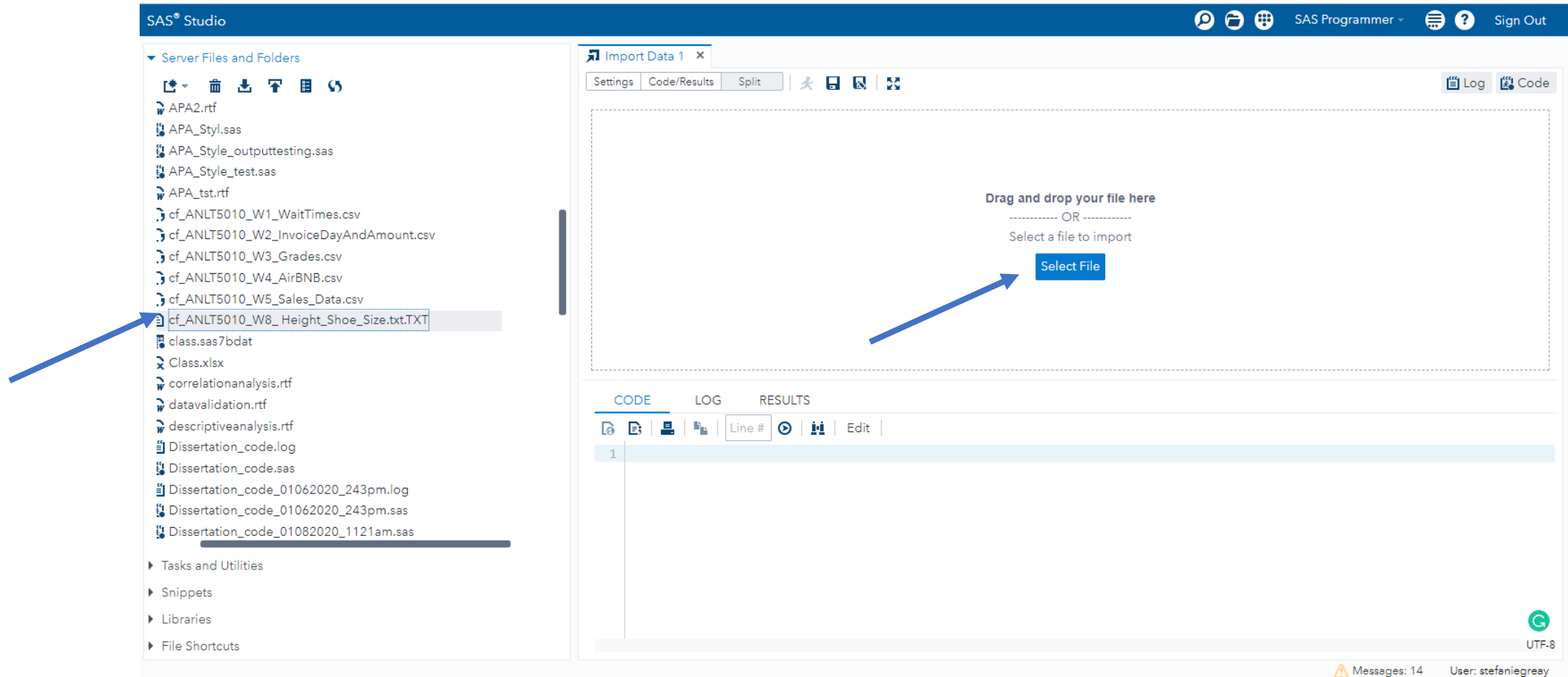
To import the dataset into a SAS dataset format (from the current text (tab-delimited) format), right click on the name of the file, and select “New” and then “Import Data.”

The screenshot displays the SAS Studio interface. On the left, the 'Server Files and Folders' pane lists various files, including 'cf_ANLT5010_W8_HeightShoeSize.txt.TXT'. A blue arrow points to this file. A right-click context menu is open over the file, with a blue arrow pointing to the 'New' option. A second blue arrow points to the 'Import Data' option within the 'New' submenu. The main window shows the 'Import Data' wizard with 'File type' set to 'DLM (Delimited file)' and 'Generate SAS variable names' checked. The 'Delimiter' is set to '09x'. The 'Start reading data at row' is set to 'Default'. The 'Output Data' pane at the bottom shows a table with 500,000 rows and 2 columns: 'Height' and 'Shoe Size'. The table contains 5 rows of data.

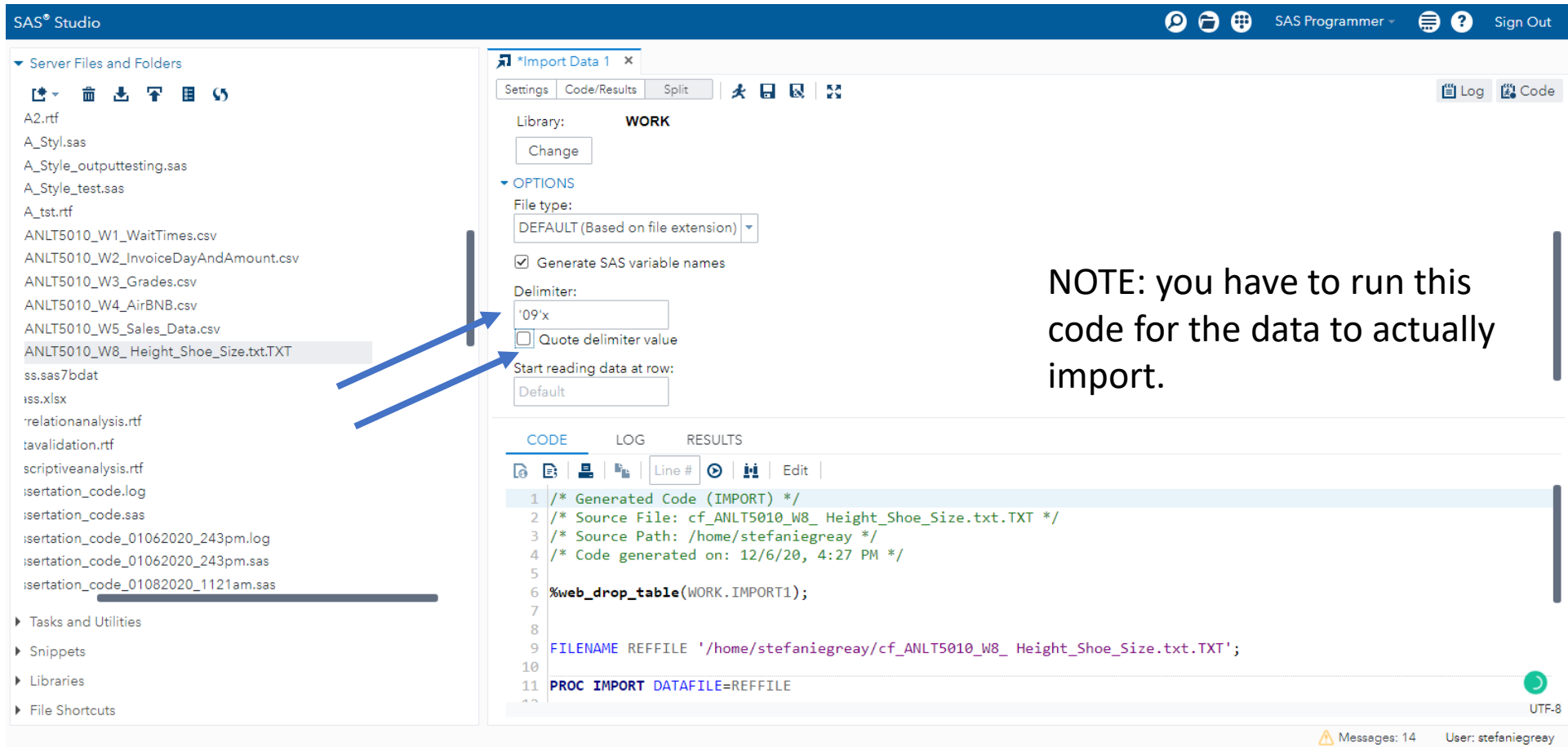
	Height	Shoe Size
1	49	5
2	49	4
3	49	5.5
4	49	6.5
5	49	7.5



Drag and drop the text file, or browse for the file to select it.



The Proc Import code will be written for you (save this as a template to use for future imports!) '09'x



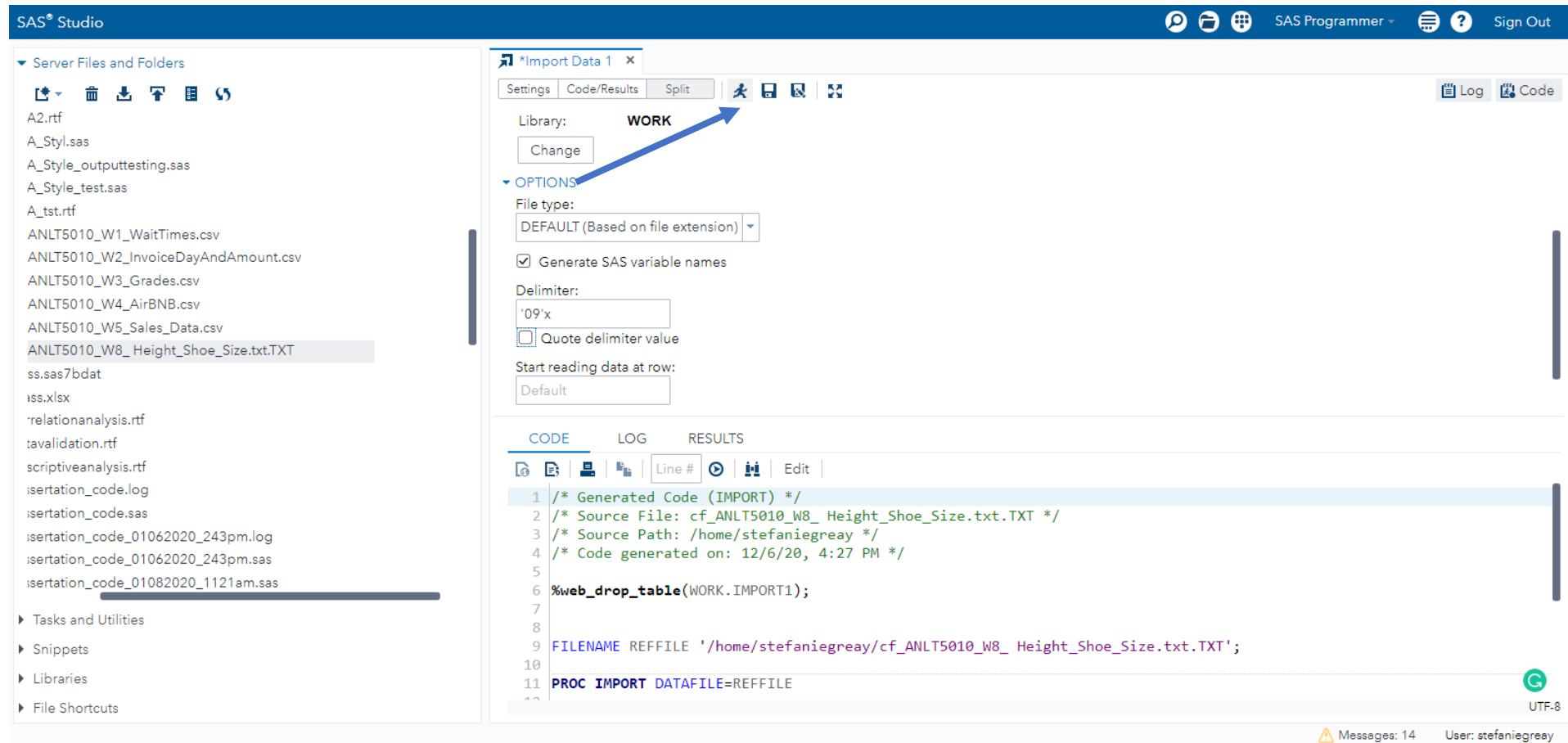
The screenshot shows the SAS Studio interface. On the left, the 'Server Files and Folders' pane lists various files, with 'ANLT5010_W8_Height_Shoe_Size.txt.TXT' selected. Two blue arrows point from this file to the 'Import Data' wizard. The wizard is open to the 'Settings' tab, showing the 'Library' set to 'WORK' and 'File type' as 'DEFAULT'. The 'Delimiter' is set to ''09'x', and the 'Quote delimiter value' checkbox is unchecked. The 'Start reading data at row' is set to 'Default'. Below the settings, the 'CODE' tab shows the generated SAS code. A note on the right states: 'NOTE: you have to run this code for the data to actually import.'

NOTE: you have to run this code for the data to actually import.

```
1 /* Generated Code (IMPORT) */
2 /* Source File: cf_ANLT5010_W8_Height_Shoe_Size.txt.TXT */
3 /* Source Path: /home/stefaniegreay */
4 /* Code generated on: 12/6/20, 4:27 PM */
5
6 %web_drop_table(WORK.IMPORT1);
7
8
9 FILENAME REFFILE '/home/stefaniegreay/cf_ANLT5010_W8_Height_Shoe_Size.txt.TXT';
10
11 PROC IMPORT DATAFILE=REFFILE
```



To run the code, click the icon that looks like a guy running.



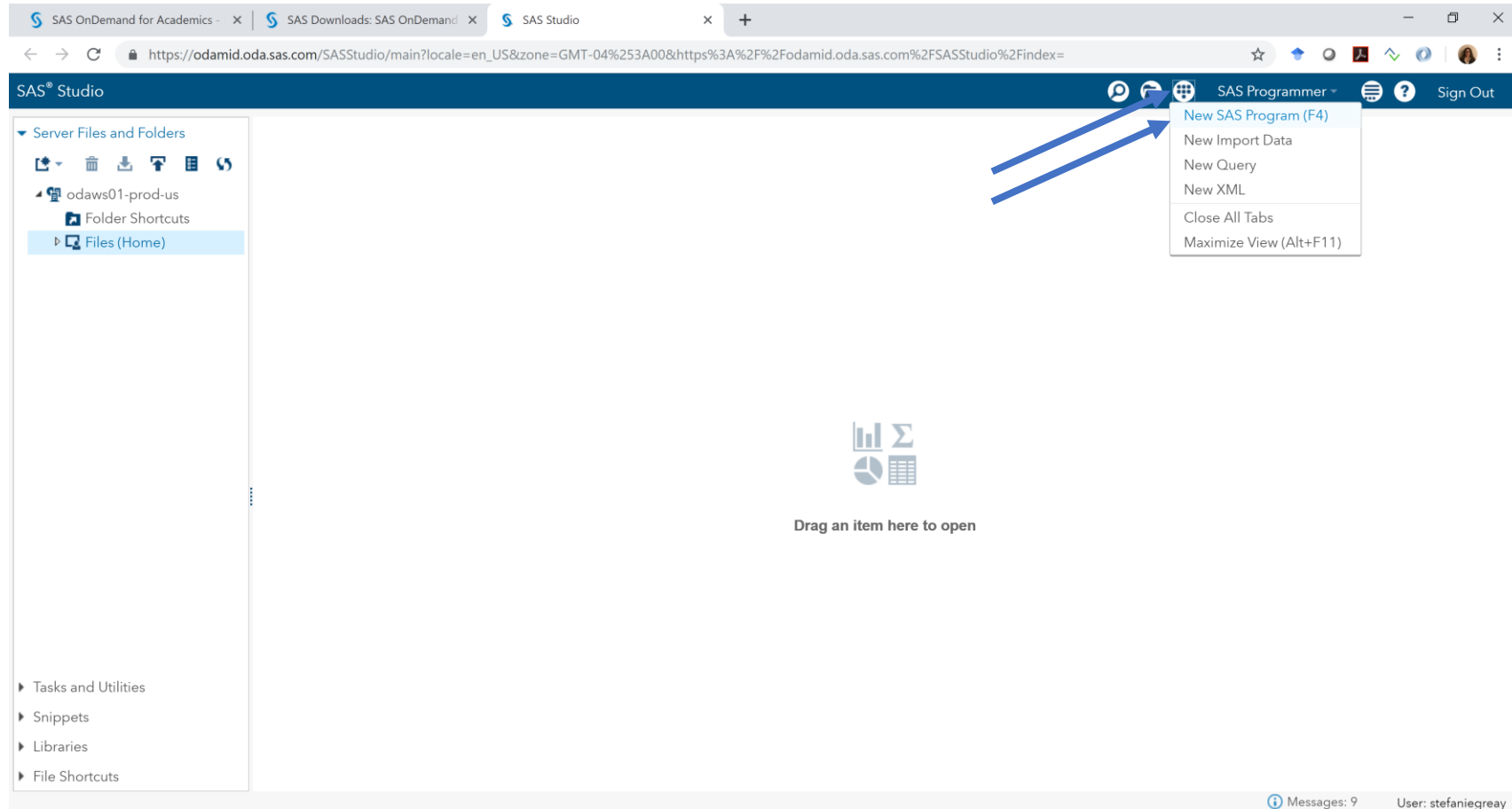
When you run the code, you will see the dataset and summary in the output data window and can verify its success.

The screenshot displays the SAS Studio interface. On the left, the 'Server Files and Folders' pane shows a list of files, with 'cf_ANLT5010_W8_Height_Shoe_Size.txt.TXT' selected. The main window is titled '*Import Data 1' and shows the 'Import Data' dialog. The 'Library' is set to 'WORK'. Under 'OPTIONS', 'File type' is 'DEFAULT (Based on file extension)', 'Generate SAS variable names' is checked, 'Delimiter' is '09x', and 'Quote delimiter value' is unchecked. 'Start reading data at row' is 'Default'. Below the dialog, the 'RESULTS' tab is active, showing a 'Table of Contents' for 'The CONTENTS Procedure'. The table lists metadata for the dataset 'WORK.IMPORT1'.

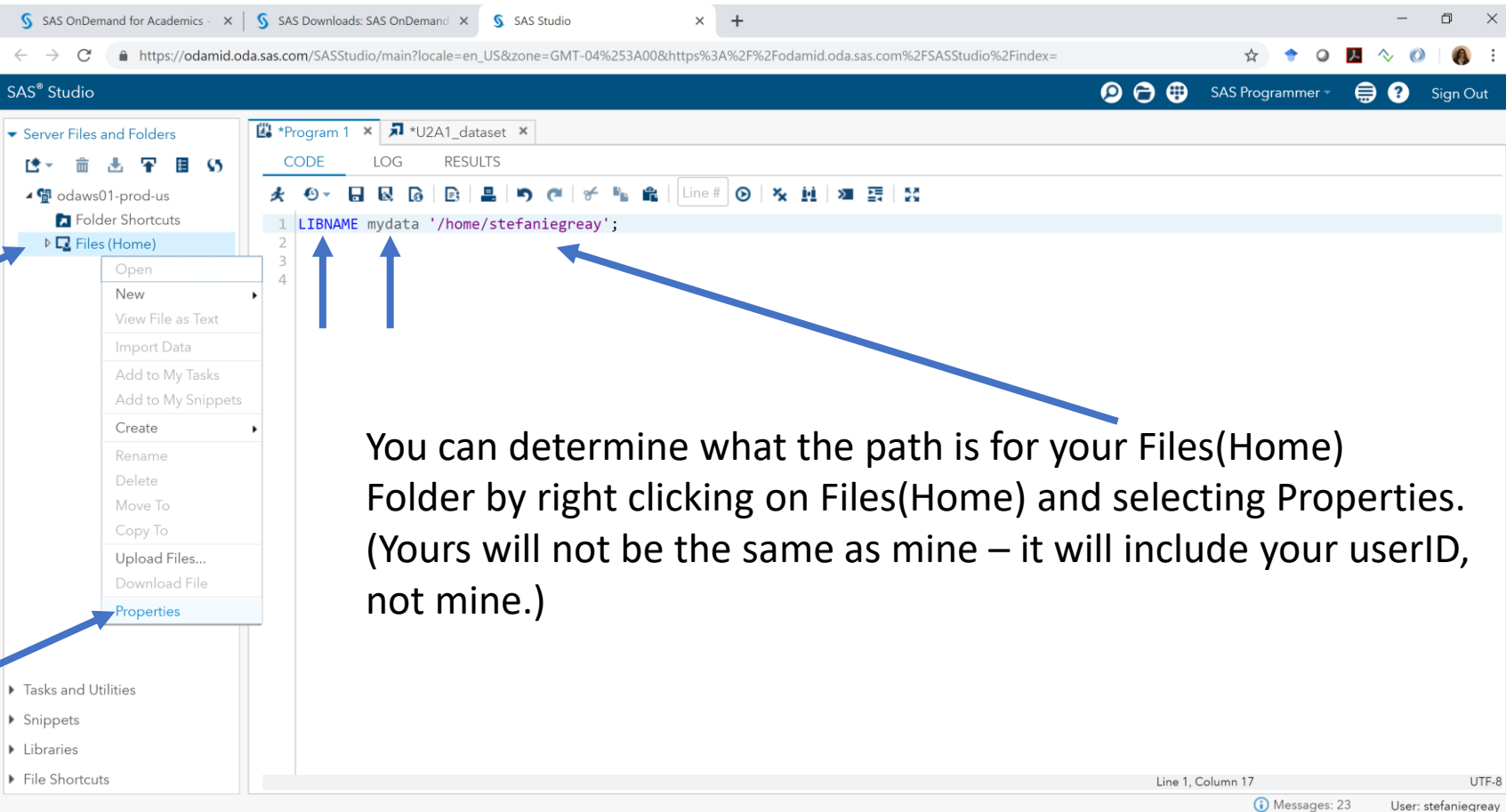
The CONTENTS Procedure			
Data Set Name	WORK.IMPORT1	Observations	500000
Member Type	DATA	Variables	2
Engine	V9	Indexes	0
Created	12/09/2020 16:28:51	Observation Length	16
Last Modified	12/09/2020 16:28:51	Deleted Observations	0
Protection		Compressed	NO
Data Set Type		Sorted	NO
Label			



To get started with the SAS portion of the Week 8 Assignment 1 assignment, start a new SAS program.



To create a SAS Library for your Files(Home) folder, you need to use a libname statement

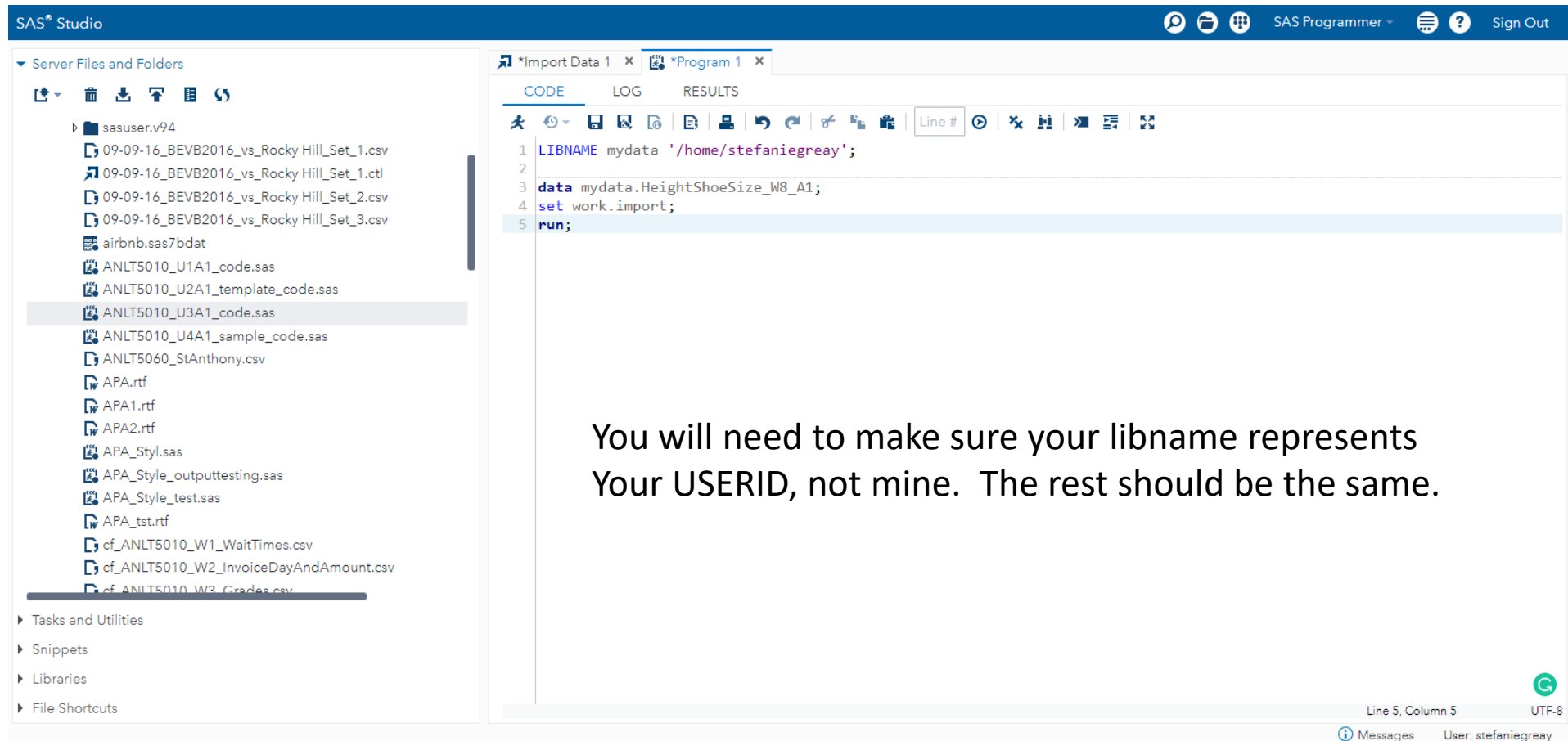


The screenshot shows the SAS Studio web interface. On the left, the 'Server Files and Folders' pane displays a tree structure with 'Files (Home)' selected. A right-click context menu is open over 'Files (Home)', with the 'Properties' option highlighted at the bottom. A blue arrow points from the 'Properties' option to the explanatory text. In the center, the 'CODE' pane shows a SAS program with the following line of code: `LIBNAME mydata '/home/stefaniegreay';`. Two blue arrows point from the 'LIBNAME' and 'mydata' keywords to the same text. A third blue arrow points from the path '/home/stefaniegreay' in the code to the 'Properties' option in the context menu. The status bar at the bottom right indicates 'Line 1, Column 17' and 'User: stefaniegreay'.

You can determine what the path is for your Files(Home) Folder by right clicking on Files(Home) and selecting Properties. (Yours will not be the same as mine – it will include your userID, not mine.)



Save the temporary SAS dataset created by the import to your library using the following sample code.



The screenshot shows the SAS Studio interface. On the left, the 'Server Files and Folders' pane displays a list of files under the 'sasuser.v94' directory. The file 'cf_ANLT5010_W3_Grades.csv' is selected. On the right, the 'CODE' pane shows the following SAS code:

```
1 LIBNAME mydata '/home/stefaniegreay';  
2  
3 data mydata.HeightShoeSize_W8_A1;  
4 set work.import;  
5 run;
```

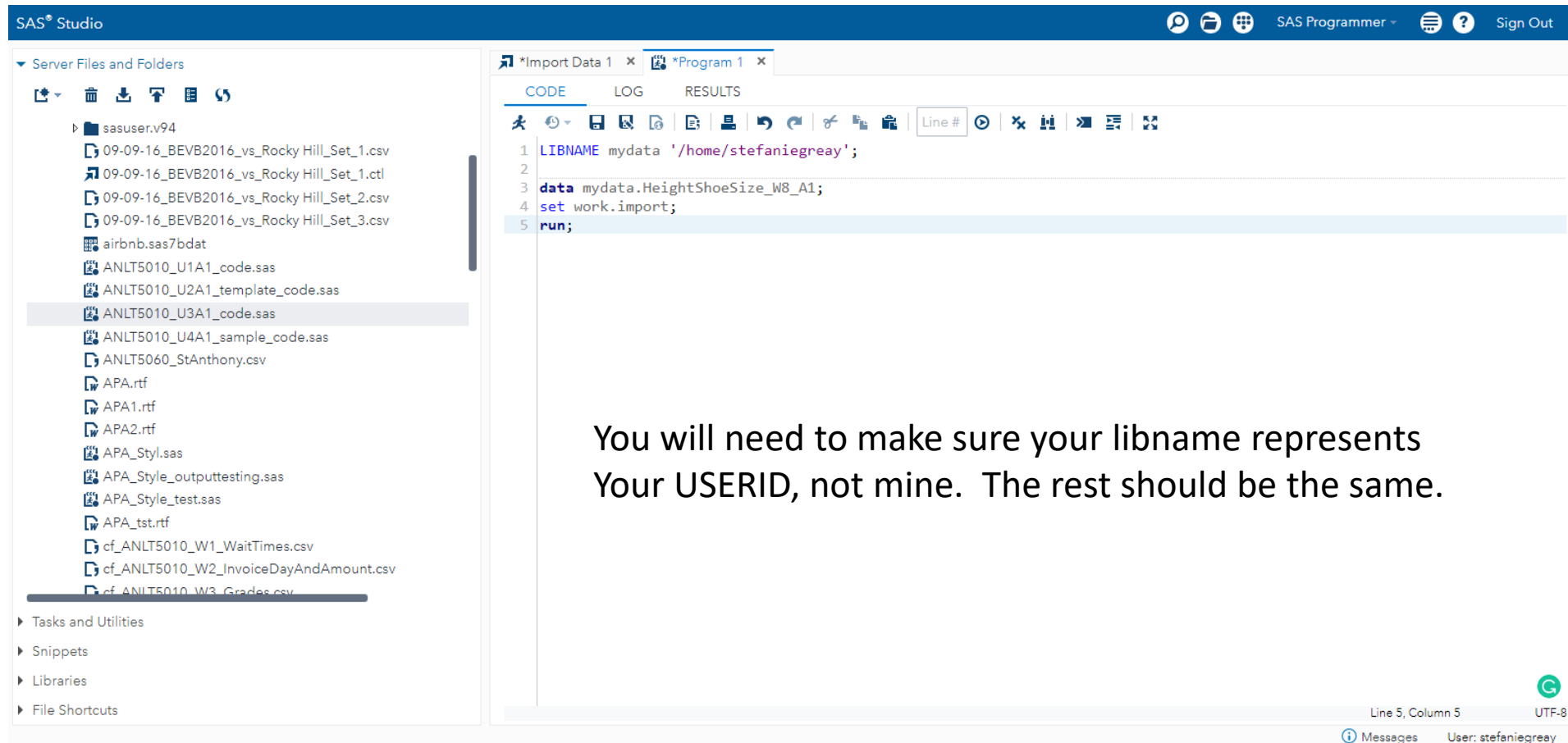
Below the code editor, a text box contains the following message:

You will need to make sure your libname represents
Your USERID, not mine. The rest should be the same.

The status bar at the bottom right indicates 'Line 5, Column 5' and 'UTF-8'. The user is identified as 'User: stefaniegreay'.



You can now add whatever other code you want to run against the data.



Basic process

- Upload the file
- Import the data in the file into a SAS dataset
- Select a subset of the 500,000 records (a random sample is best)
- Check for a linear relationship between the variables
- Check assumptions required for simple linear regression
- Fit a simple linear regression model
- Evaluate and interpret the simple linear regression model



Additional Resources for Interpreting Output

Proc SurveySelect:

https://documentation.sas.com/?cdcId=pgmsascdc&cdcVersion=9.4_3.4&docsetId=statug&docsetTarget=statug_surveyselect_toc.htm&locale=en

Proc Reg:

https://support.sas.com/documentation//cdl/en/statug/68162/HTML/default/viewer.htm#statug_reg_toc.htm

