Na	ıme:				
La	ıb A	ssignment #6 (15 points)			
<u>No</u>	otes:	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
•	If you need help on an R function/command, type ?functionname or ?commandname and help for this function/command will appear in the Help window.				
•	Create a new folder on your desktop and name it LA6_your name . Set this as your working directory in RStudio.				
•	In RStudio, open a blank source file (R Script) to work in, and make sure all History entries are cleared before you start your work on the following questions.				
•	In the R Script, add <u>Lab Assignment-6 (by your name</u>) as a comment line, and clearly label your answer to each question and part.				
Documents in the M		or trieve the file HCC. txt from Data, Script, and other R Files folder under Course or trieve the file Moodle Course page and save it into your LA6_your name folder. Open the file and take a good look at it.			
	U)	Using read.table() function read the dataset into an R data frame, naming it HCC .			
	c)	Check the structure of your data frame.			
	d)	Convert Reason and Month variables into factors <u>using relevant labels</u> . See the HCC.txt file for the information needed.			
	e)	Check the structure of your data frame again.			
	f)	Use the head() command to look at the first five rows of the data frame. Use the tail() command to look at the last seven rows of <u>only</u> the first and third variables in the data frame.			
	g)	Write and run a command that will give you the average length of stay for the month of April. Report the result here:			
	h)	Write and run a command that will give you the <u>longest</u> stay before a normal discharge in the month of January. Report the result here:			

- 2) Install and load the package dslabs.
 - a) The **murders** is one of the datasets in **dslabs** package. Type **?murders** and take a good look at the documentation on this dataset.
 - b) Using sink () function create a file named sumstats.txt in your LA6 your name folder.
 - c) Inside R, add a line of text "Summary Statistics on No. of Gun Murders in the South" to the file you created in part b. Then, calculate summary statistics on **total** (Number of gun murders) variable for all the states in the South region.
 - d) After leaving a blank line, add another line of text "Summary Statistics on No. of Gun Murders in the West" to the file. Then calculate summary statistics on total (Number of gun murders) variable for all the states in the West region.
 - e) Use **sink()** function to close the **sumstats.txt** file. Open this file and make sure that the summary statistics have been directed to the file.
 - f) Using write.table() function write the murders dataset into a new file called murdersUS.txt in your LA6_your name folder. Do not quote anything, do not name the rows, and use tab as delimiter. Open the murdersUS.txt file, look at it, and make sure the dataset has been written out properly.
- 3) Retrieve the file stu_surveys.pdf from Data, Script, and other R Files folder under Course Documents in the Moodle Course page and save it into your LA6_your name folder. In the file, you will find scanned copies of five student surveys.
 - a) Create an empty data frame, naming it *survey*.
 - b) Using the edit() function, invoke the editor in **R** and enter the student survey data from the file stu_surveys.pdf into the survey data frame. Don't forget to name the variables as you are entering the data.
 - c) Print the data frame *survey* and make sure you have 5 observations and 18 variables in it.
 - d) Write the data into a CSV file naming it **survey.csv**. Check the file to make sure everything is in order. If not, fix it in R using the relevant arguments.
 - e) Read the dataset into an R data frame, naming it **survey** in.
 - f) Display the structure of your data frame to make sure that you got everything right and that you have 5 observations and 18 variables.

	g)	Calculate the summary statistics on the age variable (<u>in years</u>). Report the results below:				
		Minimum is	and maximum is	years.		
		First quartile is	and third quartile is	years.		
		Median is	years.			
		Mean is	years.			
h) Find the <i>percentage</i> of students who slept at least seven hours last night and represult here:						
4)	<u>htt</u>	tical Association at at the data file				
	b)	Only with data from years 1990 beef.demand.sub. Then, p	– 2000, create a new data frame n rint it.	aming it		
Save this lab assignment file with the blanks filled in, naming it LA6_your name . Save your RScript naming it RScript_your name . Email the professor the following five files at sgazioglu@mtech.edu:						
LA6_your name, RScript_your name, sumstats.txt, murdersUS.txt, and survey.csv						
Have 'Stat435 – LA6' in the subject line of the e-mail.						