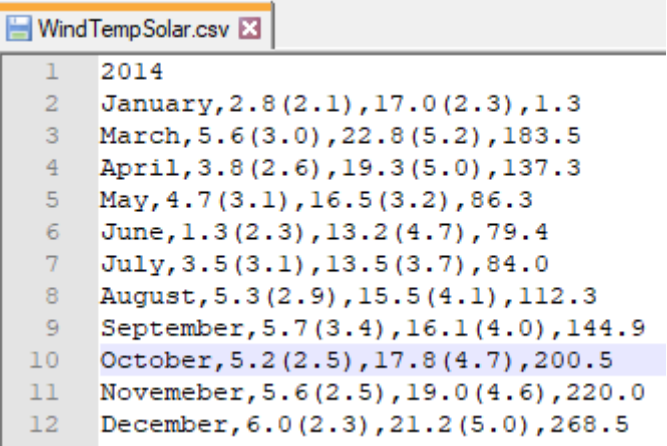


ID	Test description	Actual data for this test	Expected output	Actual Result	Pass/Fail
OPTION 1					
1	Entering valid month	Month = 1	Enter a year	Enter a month 1-12 1 Enter a year e.g 2015	PASS
2	Entering month with leading zero	Month = 01	Enter a year	Enter a month 1-12 1 Enter a year e.g 2015	PASS
3	Entering date with no data	Month = 1, year = 2020	"No Data.."	Enter a month 1-12 1 Enter a year e.g 2015 2020 January: NO DATA	PASS
4	Entering invalid month	Month = a	"Invalid option try again"	Enter a month 1-12 a Invalid Entry, try again...	PASS
5	Entering invalid year	Year = a	"Invalid Option try again"	Enter a month 1-12 03 Enter a year e.g 2015 a Invalid Entry, try again...	PASS
6	Entering valid date	Month = 3, Year = 2014	"March 2014 Average speed: 5.6 km/h Sample stdev: 3.0"	Enter a month 1-12 03 Enter a year e.g 2015 2014 March 2014: Average speed: 5.6 km/h Sample stdev: 3.0	PASS

7	Entering date from another file	Month = 1 Year = 2011	"January 2011: Average speed 6.2km/h Sample stdev: 2.8"	Enter a month 1-12 1 Enter a year e.g 2015 2011 January 2011: Average speed: 6.2 km/h Sample stdev: 2.8		
Option 2						
8	Entering valid year	Year = 2014	Average temperatures and stdev for each month. No date is there is no data for a month	Enter a year e.g 2015 2014 2014 January: average 17.0 degrees C, stdev: 2.3 Feburary: NO DATA March: average 22.8 degrees C, stdev: 5.2 April: average 19.3 degrees C, stdev: 5.0 May: average 16.5 degrees C, stdev: 3.2 June: average 13.2 degrees C, stdev: 4.7 July: average 13.5 degrees C, stdev: 3.7 August: average 15.5 degrees C, stdev: 4.1 September: average 16.1 degrees C, stdev: 4.0 October: average 17.8 degrees C, stdev: 4.7 Novemeber: average 19.0 degrees C, stdev: 4.6 December: average 21.2 degrees C, stdev: 5.0		PASS
9	Entering invalid year	Year = a	"Invalid option try again"	Enter a year e.g 2015 a Invalid Entry, try again...		PASS

10	Entering year no in data file	Year = 3000	No data for each month as year is not located in data file.	Enter a year e.g 2015 3000 3000 January: NO DATA Feburary: NO DATA March: NO DATA April: NO DATA May: NO DATA June: NO DATA July: NO DATA August: NO DATA September: NO DATA October: NO DATA Novemeber: NO DATA December: NO DATA	PASS
11	Entering space	Year = " "	No input	Enter a year e.g 2015	PASS
12	Enter nothing	Year = "\n"	No input	Enter a year e.g 2015	PASS
Option 3					

13	Entering valid year	Year = 2014	Total solar radiation for each month. No date is there is no data for a month	Enter a year e.g 2015 2014 2014 January: 1.3kWh/m2 Feburary: NO DATA March: 183.5kWh/m2 April: 137.3kWh/m2 May: 86.3kWh/m2 June: 79.4kWh/m2 July: 84.0kWh/m2 August: 112.3kWh/m2 September: 144.9kWh/m2 October: 200.5kWh/m2 Novemeber: 220.0kWh/m2 December: 268.5kWh/m2	PASS
14	Entering invalid year	Year = a	"Invalid option try again"	Enter a year e.g 2015 a Invalid Entry, try again...	PASS
15	Entering year no in data file	Year = 3000	No data for each month as year is not located in data file.	Enter a year e.g 2015 3000 3000 January: NO DATA Feburary: NO DATA March: NO DATA April: NO DATA May: NO DATA June: NO DATA July: NO DATA August: NO DATA September: NO DATA October: NO DATA Novemeber: NO DATA December: NO DATA	PASS

16	Entering space	Year = " "	No input	Enter a year e.g 2015	PASS
17	Enter nothing	Year = "\n"	No input	Enter a year e.g 2015	PASS
Option 4					
18	Entering valid year	Year = 2014	"data logged in external file"	<p>Enter a year e.g 2015 2014 Feburary: NO DATA Logged in file (WindTempSolar.csv)</p> 	PASS
19	Entering invalid year	Year = a	"Invalid option try again"	Enter a year e.g 2015 a Invalid Entry, try again...	PASS

20	Entering year no in data file	Year = 3000	"No data for that year try again"	<pre> Enter a year e.g 2015 3000 January: NO DATA Feburary: NO DATA March: NO DATA April: NO DATA May: NO DATA June: NO DATA July: NO DATA August: NO DATA September: NO DATA October: NO DATA Novemeber: NO DATA December: NO DATA -----No DATA for that year try again...----- Enter a year e.g 2015 </pre>	PASS
21	Entering space	Year = " "	No input	<pre> Enter a year e.g 2015 </pre>	PASS
22	Enter nothing	Year = "\n"	No input	<pre> Enter a year e.g 2015 </pre>	PASS
Option 5					
23	Enter a valid date	1/3/2014	Solar radiation max = 1026 Time: 12:10	<pre> Enter a date (d/m/yyyy): 1/3/2014 Date: 1/3/2014 High solar radiation for the day: 1026.0W/m2  Time: 12:10 </pre>	PASS

24	Entering year out of range	1/3/3000	"No data"	Enter a date (d/m/yyyy): 1/3/3000  No Data... Enter a date (d/m/yyyy):	PASS
25	Entering month out of range	1/50/2014	"No data"	Enter a date (d/m/yyyy): 1/50/2014  No Data... Enter a date (d/m/yyyy):	PASS
26	Entering day out of range	45/3/2014	"No data"	Enter a date (d/m/yyyy): 45/3/2014  No Data... Enter a date (d/m/yyyy):	PASS
27	Entering invalid date	a/b/cccc	Invalid date	Enter a date (d/m/yyyy): a/b/cccc Invalid date try again.... Enter a date (d/m/yyyy):	PASS
28	Blank date	" "	No Change	Enter a date (d/m/yyyy):	PASS
29	Entering invalid date	1/3/20ia	"No data"	Enter a date (d/m/yyyy): 1/3/20ia  No Data... Enter a date (d/m/yyyy):	PASS
Menu Selection					

30	Enter option 1	1	Option 1 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radiation in kWh/m2 for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  1 Enter a month 1-12	PASS
31	Enter option 2	2	Option 2 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radiation in kWh/m2 for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  2 Enter a year e.g 2015	PASS
32	Enter option 3	3	Option 3 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radiation in kWh/m2 for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  3 Enter a year e.g 2015	PASS



33	Enter option 4	4	Option 4 executed	<pre> 1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total sol ar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  4 Enter a year e.g 2015 </pre>	PASS
34	Enter option 5	5	Option 5 executed	<pre> 1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total sol ar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  5 Enter a date (d/m/yyyy): </pre>	PASS
35	Enter option 6	6	Program exited	Program Exits	PASS
36	Enter invalid option	a	"invalid option try again"	<pre> 1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total sol ar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  a Invalid Entry, try again... </pre>	PASS

37	Enter option that is not available	7	"Not a valid option"	<pre> 1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total sol ar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  7 Not a valid Option </pre>	PASS
38	Enter option with leading zero	01	Execute option 1	<pre> 1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total sol ar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program.  01 Enter a month 1-12 </pre>	PASS