

Problem 4. Write the following function as described. Do not hard code for any specific input.

Function Name: `carSearch`

Inputs:

1. (char) The filename for a text file (including file extension) containing car information
2. (double) Your maximum budget

File Outputs:

1. A text file containing the possible cars you can buy

Function Description:

You really want a car, because the Marta bus is always in the wrong place at the wrong time. You set a price limit and begin searching for possible options. Given a text file with information for a certain car on each line, write a text file containing all the possible cars that you can afford. The output text file should have the same name as the input file, but with `'_possible'` appended before the `'.txt'` extension.

Each line in the text file will contain information related to the car separated by commas. The lines will always contain price and model information but could contain others. It is guaranteed that the price will always begin with the `'$'` character. In the output text file, keep the order of the line the same as it was in the original text file.

Note: It is acceptable if your code produces an extra line at the end of the output file.

Example:

`cars.txt:`

```
Blue,$7500,1998 B$MW M3
Yellow,$9500,1997 SVT Mu$tang Cobra
$12500,2006 Toyota Prius,Turquoise
```

```
>> carSearch('cars.txt', 9500)
```

`cars_possible.txt:`

```
Blue,$7500,1998 B$MW M3
Yellow,$9500,1997 SVT Mu$tang Cobra
```

SOLUTION

```
function carSearch(filename, maxPrice)
fh = fopen(filename)
fhw = fopen([filename(1:end-4) '_possible.txt'], 'w')
line = fgetl(fh)
while ischar(line)
    [curr, rest] = strtok(line, ',')
    while ~isempty(curr)
        if curr(1) == '$'
            price = str2num(price(2:end))
            if price <= maxPrice
                fprintf(fhw, [line '\n'])
            end
        end
        [curr, rest] = strtok(rest, ',')
    end
    line = fgetl(fh)
end
fclose(fh)
fclose(fhw)
end
```