

```
% Ashley Crickard, arcricka
%arcricka@ncsu.edu
%4-10-19
%Section #202
% Project 3 : Hurricane Mapper, Spring 2019

%%
function generateReport(allHurricaneData)
% uses hurricane data to create report
% Input - allHurricaneData - structure array that has the data for all
%         hurricanes with six feilds:
%         name, date, Xs, Ys, wind, pressure
%Output: a report stored in a CSV file called hurricaneReport.csv where
%         each row has teh following info
%         Name of Hurricane, First Date, Last Date, Max Wind, Max Pressure,
%         Max Category

% creating a new file
h = fopen('hurricaneReport.csv', 'w');

% using a for loop to store the info
for b = 1:length(allHurricaneData)
    nameOfHur = allHurricaneData(b).name;
    firstDate = allHurricaneData(b).date{1};
    lastDate = allHurricaneData(b).date{end};
    maxWind = max(allHurricaneData(b).wind);
    maxPres = max(allHurricaneData(b).pressure);
    % finding the max category
    if maxWind>=157
        maxCat = 5;
    elseif maxWind>=130
        maxCat = 4;
    elseif maxWind>=111
        maxCat = 3;
    elseif maxWind>=96
        maxCat = 2;
    elseif maxWind>=74
        maxCat = 1;
    else
        maxCat = 0;
    end
    % storing the information into the opened file
    fprintf(h, '%s,%s,%s,%d,%d,%d\n', nameOfHur, firstDate, ...
        lastDate, maxWind, maxPres, maxCat);
end

fclose('all');

end
```