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%Section #202
% Project 3 : Hurricane Mapper, Spring 2019

clear;clc;
%%

% calling the function getAllHurricaneData to get hurricane data
allHurricaneData = getAllHurricaneData('allHurricanes.csv');

% Getting user input of which Hurricane they want to animate and printing
% the welcome statement
fprintf('-----\n');
fprintf('Welcome to Hurricane Analysis\n');
fprintf('-----\n');
fprintf('Animate Specific Hurricane[1]\n');
fprintf('    Animate All Hurricanes[2]\n');
fprintf('    Create Hurricane Report[3]\n');
% getting input
UserIn = input('                Select action: ');

% implimenting a switch case based on user input

switch UserIn
% if the user enters 1, the list is going to pop-up
case 1
    % creating the list
    list = {allHurricaneData.name};
    % making the list pop up
    listIndex = listdlg('ListString', list);
    % creating the figure background
    createFigureWithBackground()

    % getting the data for the specific hurricane
    hurricaneData = allHurricaneData(listIndex);

    % plotting the hurricane with the function animatePlotHurricane(hurricaneData)
    animatePlotHurricane(hurricaneData)

    hurName = hurricaneData.name; %name of the hurricane
    % assiging the title
    title(sprintf('Hurricane %s, 2017', hurName));

case 2
    % have to plot all of the hurricanes
    % creating the figure background
    createFigureWithBackground()
    %adding a title
    title('Hurricanes in 2017');
    % using a for loop to run the function for how many hurricanes their
    % are
    for a = 1:length(allHurricaneData)
        % plot every hurricane by going through all of the data
        hurricaneData = allHurricaneData(a);
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% plotting the hurricane with the function animatePlotHurricane(hurricaneData)
animatePlotHurricane(hurricaneData)

% add the names of the hurricanes
name = allHurricaneData(a).name;
% getting x and y values for the table
xL = allHurricaneData(a).Xs(1);
yL = allHurricaneData(a).Ys(1);
% adding label for the name
text(xL,yL,name, 'Color', 'w');

end

case 3
% creating a hurricane report for this choice
generateReport(allHurricaneData);

otherwise
fprintf('Exiting program. Incorrect action.');
```

end  
% Left Office hours