**IMPORTANT NOTE:** BEFORE ATTEMPTING TO RUN ANY OF THE COMMANDS BELOW, COMPLETE THE FOLLOWING STEPS:

1. Copy the contents of the “MATLAB” folder included in the project zip file into your own MATLAB folder (alternatively: navigate to the “MATLAB” folder in the “Current Folder” section in your version of Matlab)
2. Open the file “Team8\_ProjectWorkspace.mat” included in our “MATLAB” folder

The following commands will allow a user to run the algorithms implemented as a part of this project. In order to run a part of the algorithm just copy the lines of the action you wish to take into the Matlab command window and press “Enter” on your keyboard.

**NOTE: For a later command to work properly, its corresponding earlier commands (labeled with the same bullet point letter) must have already been run. Attempting to run commands out of order will result in failure.**

1. Run RN Extraction Algorithm to receive RN Set, U Set, and P Set

A. [ avg\_5\_RN\_set, avg\_5\_U\_set, avg\_5\_P\_set, avg\_5\_RN\_rated, avg\_5\_user\_rated, avg\_5\_P\_rated, avg\_5\_item\_rated, avg\_5\_RN\_lengths, avg\_5\_RN\_att\_precision ] = rn\_extract(data, pos\_avg\_5, att\_set\_5)

B. [ avg\_10\_RN\_set, avg\_10\_U\_set, avg\_10\_P\_set, avg\_10\_RN\_rated, avg\_10\_user\_rated, avg\_10\_P\_rated, avg\_10\_item\_rated, avg\_10\_RN\_lengths, avg\_10\_RN\_att\_precision ] = rn\_extract(data, pos\_avg\_10, att\_set\_10)

C. [ ran\_5\_RN\_set, ran\_5\_U\_set, ran\_5\_P\_set, ran\_5\_RN\_rated, ran\_5\_user\_rated, ran\_5\_P\_rated, ran\_5\_item\_rated, ran\_5\_RN\_lengths, ran\_5\_RN\_att\_precision ] = rn\_extract(data, pos\_ran\_5, att\_set\_5)

D. [ ran\_10\_RN\_set, ran\_10\_U\_set, ran\_10\_P\_set, ran\_10\_RN\_rated, ran\_10\_user\_rated, ran\_10\_P\_rated, ran\_10\_item\_rated, ran\_10\_RN\_lengths, ran\_10\_RN\_att\_precision ] = rn\_extract(data, pos\_ran\_10, att\_set\_10)

1. Run Hybrid Algorithm to find U Set Probabilities

A. [ avg\_5\_U\_prob ] = prob\_extract( avg\_5\_RN\_set, avg\_5\_U\_set, avg\_5\_P\_set, avg\_5\_RN\_rated, avg\_5\_user\_rated, avg\_5\_P\_rated )

B. [ avg\_10\_U\_prob ] = prob\_extract( avg\_10\_RN\_set, avg\_10\_U\_set, avg\_10\_P\_set, avg\_10\_RN\_rated, avg\_10\_user\_rated, avg\_10\_P\_rated )

C. [ ran\_5\_U\_prob ] = prob\_extract( ran\_5\_RN\_set, ran\_5\_U\_set, ran\_5\_P\_set, ran\_5\_RN\_rated, ran\_5\_user\_rated, ran\_5\_P\_rated )

D. [ ran\_10\_U\_prob ] = prob\_extract( ran\_10\_RN\_set, ran\_10\_U\_set, ran\_10\_P\_set, ran\_10\_RN\_rated, ran\_10\_user\_rated, ran\_10\_P\_rated )

1. Run Probability Vals to find average probabilities of injected attackers and original reviewers

A. [ a\_5\_att\_prob\_mean, a\_5\_unl\_prob\_mean ] = prob\_vals( avg\_5\_U\_set, avg\_5\_U\_prob, avg\_5\_RN\_set )

B. [ a\_10\_att\_prob\_mean, a\_10\_unl\_prob\_mean ] = prob\_vals( avg\_10\_U\_set, avg\_10\_U\_prob, avg\_10\_RN\_set )

C. [ ar\_5\_att\_prob\_mean, ar\_5\_unl\_prob\_mean ] = prob\_vals( ran\_5\_U\_set, ran\_5\_U\_prob, ran\_5\_RN\_set )

D. [ar\_10\_att\_prob\_mean, ar\_10\_unl\_prob\_mean] = prob\_vals(ran\_10\_U\_set, ran\_10\_U\_prob, ran\_10\_RN\_set)