

Assignment 4: Linking FRs and NFRs (20% of the total grade)

Requirements Engineering (Summer 2021)

IMPORTANT DATES

Thursday (7/22/2021), in class

Assignment 4 release

Wednesday (7/28/2021), in class

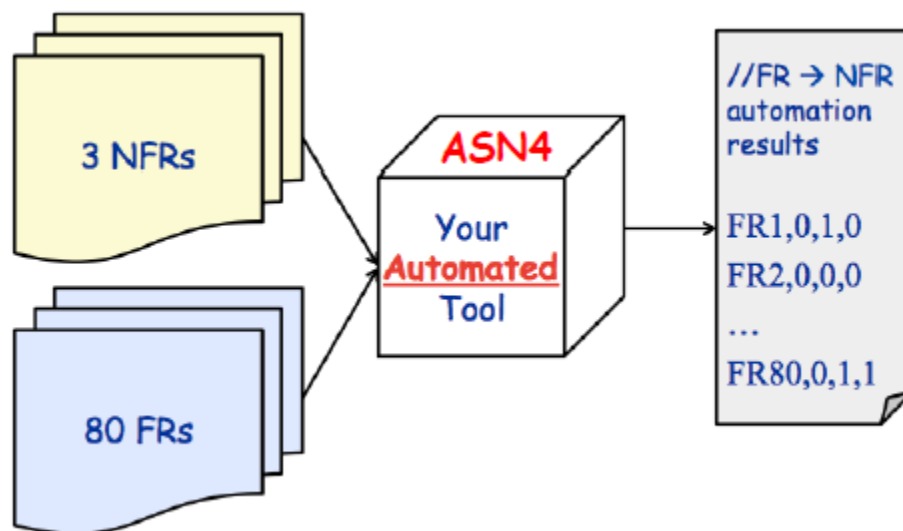
Assignment 4 grading session

INPUT

- Three (3) nonfunctional requirements and eighty (80) functional requirements (FRs) are provided in txt format (**requirements-3nfr-80fr.txt**)
- Answer set of linking the 3 NFRs and the 80 FRs are provided in txt format (**trace-3nfr-to-80fr.txt**)
- The formatting information of NFRs, FRs, and the trace links is provided in txt format (**formatting-readme.txt**)

DESCRIPTION

This is an individual assignment. Assignment4 asks you to develop an algorithm for automatically linking FRs and NFRs. The following figure shows a conceptual sketch of your Assignment4 solution (your automated tool) in the context of requirements tracing.



GRADING (20 POINTS IN TOTAL)

On Wednesday, 7/28/2020, you are asked to have three runs of your Assignment4 solution, and email the result from each run to the instructor (nan.niu@uc.edu). These three runs will be based on existing input data, and new input data with more FRs and more NFRs.

NOTES

- You must follow the input and output conventions specified in **formatting-readme.txt** for your Assignment4.
- You can use any programming language (Python, Java, JavaScript, C/C++, C#, etc.) and any development environment (Jupyter Notebook, Eclipse, Visual Studio, etc.) to perform Assignment4.
- The lectures on 7/22 and 7/23 will cover sample solutions to Assignment4, and some references will be uploaded to the course website. However, you are encouraged to research and develop your own tracing algorithm.
- The final evaluation of your Assignment4 solution will be based on such metrics as recall, precision, and F2 measuring trace retrieval effectiveness.
- The late penalty is 20% earned grade off for each day being late (up to two days). If you have difficulty in meeting the submission deadline (in class, Wednesday, 7/28/2021), then please contact the instructor (nan.niu@uc.edu).