Assignment 1: Introduction

Due Date: 07/22 at 11:59 PM

Installation of Latex and General Knowledge on Computer Science

Part 1: Installation of Latex

- Download and Install Latex Package from https://miktex.org/
- Download and Install a Latex Editor (one of your choice)
  - TeXstudio (https://www.texstudio.org/)
  - Texmaker (https://www.xm1math.net/texmaker/)
- Latex Tutorials
  - Learn LaTeX in 30 minutes (https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes)
  - Video - Latex Tutorial for Beginners (https://www.youtube.com/watch?v=fCzF5gDy60g)

Part two: General knowledge in Computer Science

This assignment will be done exclusively in Latex. A template file is provided (assign1.zip), it contains the main file **assign1.tex** that you should use to prepare your assignment document.

a) Inquiry 1

The reading materials assigned for the first week of lecture cover three themes that are: Algorithm analysis, algorithm correctness, and Software Verification (Testing vs. Formal Methods). Write a one-page abstract (pdf) compiled from the latex file (**assign1.tex**), that summarizes these themes.

Grading Rubric:

	Poor (not relevant to the topic)	Marginal (not insightful)	Acceptable (general with details)	Good (summary with some details)	Honors (Summary presented as an abstract with details such as concepts, relevance, applications, etc..)
Algorithm analysis					
Algorithm correctness					
Software Verification					

b) Inquiry 2

Consider the paper entitled "**Software Verification: Testing vs. Model Checking**" posted in BB. The following web links present approaches of how to read and analyze scientific papers:

- http://www.cs.jhu.edu/~jason/advice/how-to-read-a-paper.html
- http://www.eecs.harvard.edu/~michaelm/postscripts/ReadPaper.pdf
- http://www.cs.columbia.edu/~hgs/netbib/efficientReading.pdf

Write a one-page summary of the above paper. The following point should be developed:

- Definitions of Software Testing and Model Checking
- Description of the comparative study presented in the paper
- Conclusion that states the results and the best approach to be used in software verification.

The one page (pdf) should be compiled from the latex file (**assign1.tex**).

Grading Rubric:

	Poor (not relevant to the topic)	Marginal (not insightful)	Acceptable (general with details)	Good (summary with some details)	Honors (summary presented as an abstract with details such as concepts, relevance, applications, etc..)
Definitions of Software Testing and Model Checking					
Description of the comparative study presented in the paper					
Conclusion that states the results and the best approach to be used in software verification					

PS: You will create only one latex file (**assign1.tex**) that has two parts (inquiries 1 and 2), thus compiled into a pdf file of two pages.

Grading Rubric:

	Poor (not relevant to the topic)	Marginal (not insightful)	Acceptable (general with details)	Good (summary with some details)	Honors (summary presented as an abstract with details such as concepts, relevance, applications, etc..)
Description of the topics					
Application toyour company/profession					
Problems that can be solved using a research-based approach					

Submission: A zip file that contains the modified **main.tex** and its compile version **main.pdf**.