

This assignment was probably the hardest one yet, firstly I was confused about the implementation of infer, I tried making the conditions on the code rather than making constraints which I realized and had to change my implementation for infer.

I kept getting confused between the types and some functions were unused for me so it was kind of confusing to figure out why functions were needed, probably better names required for functions. I used a helper function **modifyTVar** because I couldn't directly apply sub to the arguments. Also I realized another mistake first, I did compose simply after applying sub1 on sub 2 and then union with sub1, but during testing I realized that the keys that were replaced also came back, so I had to filter the map to it having no keys that we already have substituted. Unify was hard to write even with the algorithm and I feel like we should have a lot more test cases for each function otherwise it's a lot of guesswork that I felt.

Relabel was used to convert "Var x" into its Var num. There was a lack of context in this assignment a bit increasing it's hardness. Also since it was harder than the rest of pa's so I would suggest increasing transferring some of the quiz % to this.