The transfer function is for mathcing the string content and switch the corresponding items with BWAPI::UnitTypes, then store in another list.

The scout function is responsible for sending a worker to explore the map until enemy's base is spotted.

The harassment function give m_scout command to attack the nearest enemy's unit then run to my base until no either it's close enough to my base or enemy's unit stop targeting at m_scout.
(I abandoned the defense function because it may cause enemy's units stop chasing m_scout next time. But the defense function is implmented ,called underAttack())

The IdleBarracks, IdleFactorys, trainBarracks and trainBarracks are responsible for training units once trainBarracks or trainBarracks are called. It ensures each building only train one unit at a time.

The build function is just updated version of Tools::BuildBuiling. I implemented DFS for building placement, but the start location of the DFS is hard to calculated, so the DFS is abandoned as well,

The attack function contain condition for launching an engagement.Also, there is a low-level target-picking system that allow my combat unit have a effective target.

bunkerRise function is for building up static defense. Once second base is up, bunkers will be built around sencond base.

expansionSecond function is for building up second base. It bases on ordinary logic that choosing the natural units that are not around my starting location as second base position.

The rest of functions are either add-on for above function or not properly functioning. Each of them was designed to serve micro operations ,but turns out I over-estimated myself as I'm unable to do that complex.

Sending Regards to Dr. David Churchill, thank you for teaching us such an interesting class.