A loader is a type of tractor, usually wheeled, sometimes on tracks, that has a front-mounted square wide bucket connected to the end of two booms (arms) to scoop up loose material from the ground, such as dirt, sand or gravel, and move it from one place to another without pushing the material across the ground. A loader is commonly used to move a stockpiled material from ground level and deposit it into an awaiting dump truck or into an open trench excavation.

The loader assembly may be a removable attachment or permanently mounted. Often the bucket can be replaced with other devices or tools—for example, many can mount forks to lift heavy pallets or shipping containers, and a hydraulically opening "clamshell" bucket allows a loader to act as a light dozer or scraper. The bucket can also be augmented with devices like a bale grappler for handling large bales of hay or straw.

The main objective of the project is to design wheel loader and perform static analysis on wheel loader. The cad model is generated in solid works and analysis carried out in solid works simulation.