Statement of Goals
This should be a one paragraph high level overview of what will be accomplished in this milestone. In terms of technical detail this section should be easily understandable to someone with familiarity with data systems. It shouldn't make assumptions about what they know about the milestone but it can make assumptions about what they know about CS. For example, don't assume that the reader knows we are building a column oriented data system, but you can assume that they know what that is.

Technical Description
This section will include the technical details of your design. It should include the design choices you made and the justification for the choice as well as any drawbacks or limitations. This will be tightly coupled with the goals of each milestone and may include the following (though this is not an exhaustive list):

M1: A description of how you store and access your catalog. The design of your variable pool including how you avoid namespace collisions between simultaneous clients.

M2: A description of your indexes. How do you support multiple clustered indexes? How do you support a clustered and a tree?

M3: Include the details of how you manage increased efficiency on multiple scans. Do you use SIMD and multiple threads? If so how do you divide the work between threads and what do you use to prevent race conditions?

M4: Here we expect design details about hash join. Which hash function did you choose and why? Do you make any assumptions about workload? Why?

M5: How do you handle data reorganisation and index updates?

For example, one part of the technical description for M2 might include the following:

*The b+tree I use as an index has a `#define`d value for "fanout" which is set to 1000. The variable is set prior to compilation for several reasons … and 1000 was chosen because it …*

This section would also likely include any figures related to the way the milestone works. For example, if you had a drawing that shows the data layout of your index; a flow chart that shows how your system makes some decision; or a concurrency algorithm for avoiding race conditions in a multi-threaded result set merge, that information/chart/drawing/figure would go in this section.
**Evaluation**

Here you will put the design and results of any experiments that you performed. This can also include figures related to how you made certain design decisions. For example, if you chose to not use SIMD in your implementation, you might include the set up and results of an experiment that shows that your system is memory bound and will therefore not benefit from SIMD. Similarly, if you chose the fanout for your tree experimentally you could put the results of those experiments in this section.

**Challenges & Open Items**

This section will include any obstacles that you overcame as well as any issues that remain, and next steps for the project.