**Context**

High resolution reconstruction of image is a critical tool these days which can be used to view any real time object in a 3D format and in a compact version. But to reconstruct a real time object into a 3D image has its own constraints like processing them with a limited infrastructure with a view to use optimal budget and also optimizing them is a big constraint.

**Objective**

The objective is to find the trends of the usage of GPUs which is deployed for terapixel rendering on azure platform. Here the usage of memory, how the workloads are distributed and the how the GPUs perform to heavy loading and their activity is analysed.

**Method**

The project is developed using the CRISP DM approach by following a structured guideline which includes multiple processes

**Results**

Of all the results from the process, rendering is the most important event in the rendering process since it occupies most of the execution times. Also, the utilisation of GPU memory was poor and not evenly distributed. It was also noticed that some GPU cards had bad tolerance to temperature and their power consumption. More the power consumption more the time it takes complete the process by the GPUs. Similar observations are observed when the GPU temperature is also high.

**Novelty**

Here in this project we try to analyse the GPU performance with the cloud performance and terapixel processing analysis together. All three-analysis combined together helps in optimizing high resolution images with optimal usage of infrastructure over the cloud.

