# Overview of the Assignment:

In this exercise we will review and apply distributed database concepts including replication and fragmentation to our Netflix rental database which you have been working with. As part of your solution you will need to consider how your design should be allocated, specifically through fragmentation and replication. You may complete this assignment in groups of two or on your own.

**Assumption for your distributed design:** Our fictional Netflix business will now support “RedBox” style locations, these are automated DVD dispensing machines which are placed in supermarkets, our fictional scenario will deploy thousands of such DVD dispensing machines worldwide and we are concerned about the availability and performance of these systems connecting to a centralized database along with millions of users from home requesting rentals.

* **Your Proposal:** Develop a technical business proposal outlining a distributed database solution which will support the distributed environment for Netflix outlined above. Your design needs to reflect tradeoffs and include a diagram of your proposed distributed design. Your proposal needs to be no more than 4 pages single spaced including all figures and diagrams. Proposal does not need to focus on cost- however cost tradeoffs should be considered. Professionally organize your response with a cover page, high level summary paragraph, and use appropriate APA style references.

**Below is an outline of your proposal.**

* Outline 3 main goals of allocation within your design (3 sentences)
* Diagram (ERD) showing which tables and their columns if applicable are fragmented and how.
* In no more than 3/4 a page explain which elements of your design are fragmented and how specifically?
  1. Focus on elements which are not obvious.
  2. One key advantage and disadvantage of your fragmented design based on your main goals of allocation?
* Diagram a distributed replicated/fragmented design of your DBMS architecture
* In no more than 3/4 a page explain which elements of your design are distributed and how specifically? Focus on elements which are not obvious.
  1. Focus on elements which are not obvious.
  2. One key advantage and disadvantage of your replicated design based on your main goals of allocation?
* Research and recommend real-world relational distributed database technology (i.e. Azure, Amazon, Oracle Cloud, etc) that can be used to implement your design. (1/2 a page)