"Business Rules in Data Modeling"  Please respond to the following:

* Per the text, when databases are developed, they are modeled around business rules, so they accurately support a business function or operation.
  + Based on your experiences, identify one (1) example of a business function / operation. Explain the business function / operation in the context of business data models.
  + Identify the business rules associated with your selected business function / operation. Explain the manner in which such business rules would impact the design of a database.
  + Explain at least one (1) way in which the business function or operation would be affected if these business rules were not adhered to in the development of the database.

A business rule is a rule that defines some aspect of business and always resolves to either true or false. Business rules are there to set up the behavior of the business. Data models is the way data is connected to each other and how they are processed and stored inside the system.

A good example is of rules which are set by the business by rewarding the employees if the met the target of production or achieve some level of training. The rules could be give them a bonus of $1000. The designers should always incorporate, acceptable and non acceptable practices

The rules will be set and the designer of the database will suit the rules of rewarding the bonus. The rules will focus on those targeted goals.

The one major problems arise when the intended target is not met which will result in a different designed of the database. It can change the whole structure of the database.

Relational Database Model"  Please respond to the following:

* In the Week 1 discussion, you identified one (1) example of a business function or operation and the business rules associated with that business function / operation. You will build upon that discussion as you describe the main entities or objects of that business function / operation in question, as well as the manner in which they relate to one another.
  + Describe the main entities or objects of the business function / operation. Specify the attribute that would be the primary key for each entity, and provide a rationale for why you selected such an attribute.
  + Determine whether the relationships between each of the chosen entities are one-to-one, one-to-many, or many-to-many relationships. Justify your response.
  + Explain the key manner in which the business function / operation and the business rules associated with that business function / operation support the relationships mentioned above. Also, explain the fundamental ways in which the relationships could change, based on the interpretation of the given business rules.

The entity is any object in the system that we want to model and store information about. The attribute that the object in question has is the characteristic. The most important one is the primary key which unique identify it. In a student, his or her social security number is the one which uniformly identify them.

The main entity is the students in the database and it attribute is the student IDs number which must be unique to identified the students. This can be the social security number because each student has one social security number which is unique.

The relationship is a one to one which can be define by each person has one social security number which is unique.

The business rule would affect this relationship if they change the student IDs attribute which is the social security number to be replaced by a regular number which can be duplicated in other tables of the database.

"Entity Relationship Modeling"  Please respond to the following:

* As explained throughout this course, entity relationship modeling is a critical element of database design. If the database is not properly modeled, it is unlikely that the database will be properly developed. Using this knowledge, explain the key reasons why entity relationship modeling is important, and determine at least (1) way in which it impacts the overall development of the database.
* Analyze the key ways that entity relationship modeling helps database developers overcome potential design challenges and conflicting goals.
* For the database that you described in the Week 1 and Week 2 discussions, determine the major / minor challenges that might exist when you are creating an entity relationship diagram (ERD) for the business function / operation.

An entity relationship model is a pictorial representation of the entities and the relationship they have to each other. It is important because the model of the data represents the entities framework infrastructure. In addition, a data modeling technique important to software engineers for a conceptual data model of an information system. Moreover, it important to the database development because it used as a blueprint to build the physical database.

Entity relationship modeling helps database developers overcome potential design challenges and conflicting goals by make it easy to design a database which doesn’t have conflict entities.

The conflict might be in the student database because some students who registered for classes might withdraw in the late date after the add and drop classes has passed. Such Student might be difficult to be truck because, their statues might not be known.

"Business Intelligence"  Please respond to the following:

* Review one (1) of the following case studies, and be prepared to discuss.
  + “343 Industries: 343 Industries Gets New User Insights from Big Data in the Cloud”,    located in the online course shell and on the Web at <http://www.microsoft.com/casestudies/Case_Study_Detail.aspx?CaseStudyID=710000002102>.
  + “Klout: Data Services Firm Uses Microsoft BI and Hadoop to Boost Insight into Big Data”, located in the online course shell and on the Web at <http://www.microsoft.com/casestudies/Microsoft-SQL-Server-2012-Enterprise/Klout/Data-Services-Firm-Uses-Microsoft-BI-and-Hadoop-to-Boost-Insight-into-Big-Data/710000000129>
  + “Yahoo!: Yahoo! Improves Campaign Effectiveness, Boosts Ad Revenue with Big Data Solution”, located in the online course shell and on the Web at <http://www.microsoft.com/casestudies/Microsoft-SQL-Server-2012-Enterprise/Yahoo/Yahoo-Improves-Campaign-Effectiveness-Boosts-Ad-Revenue-with-Big-Data-Solution/710000001707>.
  + “Department of Special Investigation: Thai Law Enforcement Agency Optimizes Investigations with Big Data Solution”, located in the online course shell and on the Web at <http://www.microsoft.com/casestudies/Microsoft-SQL-Server-2012-Enterprise/Department-of-Special-Investigation/Thai-Law-Enforcement-Agency-Optimizes-Investigations-with-Big-Data-Solution/710000001175>.
* It is common knowledge that in today's business environment, organizations must continually strive to achieve a competitive advantage. Likewise, they are reliant on large amounts of data to make their business decisions.
  + Using the organization you selected, explain the key r(s) in which your organization / agency uses business intelligence in order to gain a competitive advantage. Next, speculate on the technological limitations regarding data, software, and hardware that you believe might challenge your chosen organization / agency in the future. Provide a rationale for your response.

The organization I want to talk about is Real Madrid Football Club which has 500 million fans worldwide and would like to connect to the fan worldwide. So, they wanted Microsoft Services team for help in envisioning, developing, and deploying a global digital sports platform that was built using a wide range of Microsoft cloud services. They wanted to use business intelligence by Understanding information relating to the fan, time and ticket sales to estimate revenue, volumes and margin of profit.

The challenge could be to reach to all the fan all over the world through the cloud because not every fan has access to this growing technology more especially the developing world. In addition, some countries like Chine have limited to the social media which can be another way of reaching to them.