

IT445-Assignment #1

Due Date: Sat 20th Feb, 2016 (11:59 PM)

Q1. List four of Mintzberg's Decisional roles of managers.

Answer: Any four are acceptable. As an example:

- **Entrepreneur:** Searches the organization and its environment for opportunities and initiates improvement projects to bring about change; supervises design of certain projects
- **Disturbance handler:** Is responsible for corrective action when the organization faces important, unexpected disturbances
- **Resource allocator:** Is responsible for the allocation of organizational resources of all kinds; in effect, is responsible for the making or approval of all significant organizational decisions
- **Negotiator:** Is responsible for representing the organization at major negotiations

Q2. Mention briefly some of the recently popularized concepts and technologies that will play a significant role in defining the future of data warehousing.

Answer:

- Sourcing (mechanisms for acquisition of data from diverse and dispersed sources):
 - Web, social media, and Big Data
 - Open source software
 - SaaS (software as a service)
 - Cloud computing
- Infrastructure (architectural–hardware and software–enhancements):
 - Columnar (a new way to store and access data in the database)
 - Real-time data warehousing
 - Data warehouse appliances (all-in-one solutions to DW)
 - Data management technologies and practices
 - In-database processing technology (putting the algorithms where the data is)
 - In-memory storage technology (moving the data in the memory for faster processing)
 - New database management systems
 - Advanced analytics

Q3. Managers usually make decisions by following a four-step process. What are the steps?

Answer:

1. Define the problem (i.e., a decision situation that may deal with some difficulty or with an opportunity).
2. Construct a model that describes the real-world problem.
3. Identify possible solutions to the modeled problem and evaluate the solutions.
4. Compare, choose, and recommend a potential solution to the problem.

Q4. Computer support can be provided at a broad level, enabling members of whole departments, divisions, or even entire organizations to collaborate online. Name some of the various systems that have evolved from computer support.

Answer: Computer support has evolved over the past few years into enterprise information systems (EIS) and includes group support systems (GSS), enterprise resource management (ERM)/enterprise resource planning (ERP), supply chain management (SCM), knowledge management systems (KMS), and customer relationship management (CRM) systems.

Q5. What storage system and processing algorithm were developed by Google for Big Data?

Answer:

- Google developed and released as an Apache project the Hadoop Distributed File System (HDFS) for storing large amounts of data in a distributed way.
- Google developed and released as an Apache project the MapReduce algorithm for pushing computation to the data, instead of pushing data to a computing node.