

DAC 0521 MET-M Writeup - Java Module 2 Session 3

Network Communication - It is a mechanism which allows a process (a running instance of a program) to exchange data with another process running on a connected remote machine. Operating system supports network communication by providing a protocol stack which includes implementation of

(1) Network Protocol - It is a networking hardware type independent interface for uniquely identifying machines on the network and transferring data between them. The internet protocol (IP v4/6) is a popular network protocol which identifies a machine using an integer (32/128-bit) known as its IP address and transmits data using packets each containing maximum 65535 bytes of information.

(2) Transport Protocol - It is a network protocol based interface for uniquely identifying a communicating process running on a machine and transferring data received by this machine to that process. Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) are popular IP based transport protocols which identify a communicating process using a 16-bit integer known as its port address. While TCP provides a reliable connection oriented support for unicast (point-to-point) communication, UDP provides a light-weight connectionless support for unicast as well as multicast (one-point-to-multiple-points) communication.

