CPET 565/CPET 499 Mobile Computing Systems
Assignment 6-1

Team Formation for Assignment 3:
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Assigned date: 10/10/2012
Assignment 6-1 Due Date: 10/24/2012, before 3:30 PM

Assignment 6-1 (Team Assignment) - Design of Mobile Applications and Information Architectures and Related Tradeoff Study. Use the guidelines as shown below to prepare a Design Report of Mobile Applications and Information Architecture for the Mobile App Pilot Project (continuation of Hw5).

- Executive Summary
- Mobile Computing/Information Service Environment
- Mobile Information Services
    - Information Service Types
        - Pull (on-demand)
        - Push (broadcast)
        - Synchronization
        - Disconnected operation
        - Other
    - Connection types
        - Weakly connected
        - Always connected
        - Disconnected
    - Responsibilities and Requirements: Client, Middleware, Server **(provide use case scenarios)**
        - Data collection/transformation
        - Business Logic
        - Data sharing
        - Database access
        - Services
            - Peer-to-Peer
            - Mobile Web Portal
            - Email
            - Reporting
            - Location
            - Context aware
            - Push-based Services
                - SMS Notification Message
                - Event Notification
                - Video/voice streaming

        - Localization
    - Considerations/Constraints
        - Resource usage
        - Scalability
        - Openness
        - Heterogeneity
        - Fault tolerance
        - Resource sharing
        - Privacy/Security
        - User Interface
        - Application Restrictions: data aggregation
- System Design and Architecture **(diagrams are needed)**
    - Communication Interface
    - Security/Authentication Interface
    - Hardware Architecture
        - Hardware structure of the system server
        - Hardware structure for the mobile client (host)
        - Peer-to-Peer?
    - Software Architecture
        - Software structure and functions of the server
        - Software structure for the mobile client (host)
        - Peer-to-Peer?
        - Middleware
- Trade-off Analysis

Assignment 6-1 Due Date: 10/24/2012, before 3:30 PM
**** Team's PPP file and a Design Report should cover at minimum the ITEMS appear in suggested guidelines.**

References

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[10] Mobile Information Client, AGileDelta, http://www.agiledelta.com/product_mic.html , [accessed)ct. 9, 2012]

[11] G. M. Weiss and J. W. Lockhart, “A Comparison of Alternative Client/Server Architectures for Ubiquitous Mobile Sensor-Based Applications, 2012, http://www.denzilferreira.com/UbiMI/2012/UbiMI2012-weiss-paper.pdf