

Quotation No : **UBD/Q/266/2022 - [G]**

Quotation Title : **To design, develop, testing and commissioning of web-based and mobile app for UBD e- inventory management system**

### **1.0 Specifications**

UBD eProcurement System is live now. One of the by-products of this System is UBD Inventory which starts the life cycle of Inventory Tracking System. UBD know exactly what they had been procured from all Direct Purchases to Quotations, regardless it is consumable or Fixed Assets. Thus, we have the majority of UBD Inventory, except those procured through the Tender process which can be captured as well via the Create Inventory Process and/or import via Microsoft Excel. Based on that collected database, we can extend the eProcurement system to have an Inventory Tracking System.

Through the existing e-procurement system, we can generate the information to inventory system. We are able to perform the following functions:

1. Cross check with the eProcurement on the Procured Items
2. Accept delivery in designated Inventory Centers
3. Tagging, Searching and Updating of Inventories using Mobile APP on Android Platform
4. Manage the Inventories except disposal using web-based technology
5. Generate live reports Finance/Estate can generate live reports
  - a. Generate live reports on usage based on each Faculty / Office
  - b. Generate Statistics

The Inventory Tracking will have the following features and functionalities:

1. User Account with Security Access Setting
2. User Profile Setting
3. Modular / Functional and Role Security Matrix
4. Create Inventory
5. Search Inventory
6. Update Inventory
7. Multiple Locations of receiving inventories
8. Each Faculty / Office can manage its Inventories
9. Reports and Statistics
10. Notifications
11. Extensive Audit Trails on who do what and when and where
12. Integration with eProcurement System and Supplier's Portal Tagging of the Inventory will be the major challenge in this project.

To ensure the success of this project, it is essential to tag all the Inventories in the Estate Office by using the QR Codes of the proposed System. Once the Estate Office is done, the proposed solution can then be rolled out to all other areas of UBD.

### **2.0 Features and Functionalities of Inventory Tracking System**

The following features and functionalities will be developed according to the UBD's exact specification:

1. User Account with Security Access Setting
  - Each Faculty / Office can only see its own Inventory
2. User Profile Setting
  - User can update his/her own information

- Single Sign On (SSO) to UBD Active Directory
3. Modular / Functional and Role Security Matrix
    - Set up the Role of a user
    - Security access to the modules is depending of the Role
  4. Acceptance of Delivery of Inventory
    - There will be multiple locations of receiving inventories
    - User is able to access to Procurement System
    - Verify the Delivery Items
    - Accept the Delivered Items
  5. Create Inventory
    - User is able to create the inventory if it is not created under Procurement System
    - User is able to import existing inventories via Microsoft Excel
  6. Search Inventory
    - User is able to search the inventory via a variety of parameters
  7. Update Inventory
    - User is able to track the movement of inventory
    - System to keep track of all movement history
    - Each Faculty will update its own inventory
    - Admin will update the movement of Inter-faculties
  8. Update the characteristics of Inventory
    - User is able to enter the characteristics of Inventory such as quantity, dimension, volume, etc.
    - Parent – Child relationship
  9. Tagging of Inventory
    - User is able to tag the inventory with QR Code
  10. Reports and Statistics
    - All kinds of report and statistics can be generated
  11. Notifications
    - System will automatically notify the relevant users on changes of status, etc.
  12. Extensive Audit Trails on who do what and when and where
    - System will keep track of who do what, where and when
  13. Integration with eProcurement System and Supplier's Portal
    - System will automatically display the Asset information as and when requires
    - Allow the officer to take delivery and indicate the warehouse location
    - Develop APIs for transferring data to e-Inventory and e-ICTC
  14. e-Inventory Mobile APP
    - Single Sign On (SSO) to UBD Microsoft Active Directory (AD)
    - For Inventory Officer:
      - To generate and print QR Codes to the Bluetooth enable printer
        - ~ To search for inventory
        - ~ To display simple and relevant information of inventory
        - ~ To update the movement of Inventory

- For Faculty Officer:
  - To list the Inventory by its own Faculty*
  - ~ To display simple and relevant information of inventory
  - To update Inventory*
  - ~ To update the movement of Inventory
  - ~ To display inventory history

15. Administration functions to manage
- a. Locations of inventory
  - b. Centers
  - c. Faculties
  - d. Custodian (Central and Local)
  - e. Users and Roles
  - f. Set Depreciation Percentage
  - g. Set status for hand over, holiday and acting

### **3.0 Benefits of UBD Inventory System**

- Inventories can be tracked and search easily
- Re-use common resources
- Less wastage
- Generate Reports and Statistics
- Notification Process
- Audit Trail – Life Cycle of an inventory
- Fully integrated with eBursar System

### **4.1 Overview**

- Inventories will be created via three (3) sources
- The proposed Inventory System will generate the QR Codes for each and every inventory
- Officer will tag the inventories
- All tagged Inventories will be stored in the central Inventories Database for searching, retrieving and updating.
- Who do what and where will be recorded

### **4.2 Inventory Sources**

- Three (3) sources of creating Inventories
  1. Inventories procure from eProcurement System
  2. Massive Import the existing inventories from Excel Spreadsheet
  3. Create the Inventories by using the proposed Inventory Tracking System

### **4.3 Inventory Tagging**

- System will generate the Location and Inventory QR Codes.
- To integrate, design and build by using the existing tagging machine