**Device booking system**

**Version: 2014-08-28.1**

**History**

|  |  |  |
| --- | --- | --- |
| **Date** | **Author** | **Note** |
| 2014-06-09.1 | May Lai | First release |
| 2014-06-16.1 | May Lai | List sub-function, add “P\_PWD” field into person table, update flowchart |
| 2014-06-23.1 | May Lai | 1. Combine Date and time field on device table, Person table and booking\_device table. 2. Add “PJ\_ID” and “PJ\_Stage” on booking\_device table |
| 2014-06-30.1 | May Lai | 1. Add “Loan\_Day” and “IMGURL” on Device table. |
| 2014-08-28.1 | May Lai | 1. Add “TestCategory” table for Pre-cerf test purpose. 2. Add “Avg\_HR” and modify the size of “Location” for report. |

This is web base system. It is used to manage the booking record of device. It can plan to borrow in advance; send e-mail to remind which borrowing term is overdue.

1. **Feature**
   1. **Maintain Equipment, Device, Project and Person”**
   2. **Borrowing in advance**
      1. User can borrow in advance and search which data is available for booking.
   3. **Send reminder mail to loaner**

When system found the borrowing term will be overdue, it will send e-mail to remind loaner and cc the owner of Device.

* 1. **Admin manage**
     1. Admin can reject the request of booking and provide the reason.
  2. **Report**
     1. Summary the usage situation of device.
     2. Calculate the usage Cost of device for project.
     3. Sort free time of all devices by category or class.

1. **UI function**
   1. **Maintain Device and Equipment**

-Add, Delete, Modify

* 1. **Maintain Project data**

-Add, Delete, Modify

* 1. **Maintain Person data**

-Add, Delete, Modify

* 1. **Device Borrowing**

-Borrowing request,

-Admin inbox: Approve request, Cancel request, Close request.

-Report: Summary the usage situation of device, Sort free time of all devices by category or class.

* 1. **Equipment Borrowing**

**-**Borrowing request,

**-**Admin inbox: Approve request, Cancel request, Close request.

**-**Report: Summary the usage situation of device, Sort free time of all devices by category or class, sort free time of all devices by category or class.

1. **Database Spec**

**Device Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Size** | **Format** | **UI Show** | **Usage** |
| **Device\_ID** | 50 | Pkey | Y |  |
| Asset\_ID | 50 |  | Y |  |
| Device\_category | 50 |  | Y | Device, Equipment |
| Device\_Class | 50 |  | Y |  |
| Device\_interface | 50 |  | Y |  |
| Device\_Vendor | 50 |  | Y |  |
| Device\_Name | 100 |  | Y |  |
| Device\_Cost | 50 |  | Y | Using cost on each hour |
| Device\_CreateDT | DateTime |  | Y/Auto | Auto fill current date time |
| Device\_Provider | 50 |  | Y | Vendor and Customer will provide or lend to us. |
| Device\_Status | 50 | Usable, Broken, Lost | Y |  |
| Testing\_Time | 50 |  | Y | For PerCerf |
| Avg\_HR | int |  | Y | This field will be used to calculate using rate. |
| Location | 10 |  | Y | WKS, WHQ, WCH |
| IMGURL | 255 |  | Y | Show picture |
| LOAN\_Day | 50 |  | Y | NULL |
| Owner\_ID | 50 |  | Y | Link “P\_ID of Person table” |
| Note | 255 |  | Y |  |

**Person Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Size** | **Format** | **UI Show** | **Usage** |
| **P\_ID** | 50 | Pkey | Y |  |
| P\_Email | 100 |  | Y |  |
| P\_Name | 50 |  | Y |  |
| P\_Department | 50 |  | Y |  |
| P\_ExNumber | 20 |  | Y |  |
| P\_Role | 50 |  | Y | Can be used to define Admin\_PerCerf or Admin\_Device |
| P\_PWD | 20 |  | Y | If we can access PWD from company’s domain, this field will not need. |

**Project Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Size** | **Format** | **UI Show** | **Usage** |
| **PJ\_Code** | 50 | Pkey | Y |  |
| PJ\_Name | 100 |  | Y |  |
| Cust\_Name | 50 |  | Y |  |
| PJ\_CreateDT | DateTime |  | Y/Auto | System automatically fill current date |

**Test\_Category Table (XML file to record)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Size** | **Format** | **UI Show** | **Usage** |
| **Test\_TypeID** | 10 | Pkey | Y |  |
| TestCategory\_Name | 100 |  | Y |  |

**Device\_Booking Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Size** | **Format** | **UI Show** | **Usage** |
| **Booking\_ID** | 50 | PKey | Y | When user book device, it will base on current date/time to generate number as ID. |
| Loaner\_ID | 50 |  | Y | Link “P\_ID of Person table”, need to show Name |
| Device\_ID | 50 |  | Y | Link “Device\_ID of Device Table”, need to show name |
| PJ\_Code | 50 |  | Y | Link “PJ\_Code of Project Table”, need to show project name. |
| PJ\_Stage | 20 |  | Y | This device/equipment is booked on which stage. Such as EVT, DVT, PVT. |
| TestCategory\_Name | 100 |  | Y | It will load xml of category to show. After user selected, system will fill into this field |
| Loan\_DT | DateTime |  | Y |  |
| Plan\_ReturnDT | DateTime |  | Y |  |
| Real\_ReturnDT | DateTime |  | Y |  |
| Status | 20 | Approved, Review, Reject, Close | Y | User can not modify. |
| Comment | 200 |  | Y |  |
| Reviewer | 50 |  | Y | Need to show name. |

1. **Flowchart of feature**
2. **Maintain function:**

Add/Modify/Delete:



1. **Device Borrowing**

Borrowing request:



Admin inbox: Approve request



1. **Equipment Borrowing**

Borrowing equipment:

 Admin inbox – Approve request:

