**SOFTWARE FUNCTION SPECIFICATION (SFS)**

**Doc: SRS.v1**

INFO STAFF (HR) PROJECT

**NOTICE OF CHANGES TABLE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Version** | **\* A, M, D** | **Description** | **Author** |
| 07/09/2020 | Ver 1.001 | A, M | 1. Define ERRP functions in project. | Anhtn |
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\*A - Added M - Modified D – Deleted

Version: x.y:

* The first version start 1.0
* After reviewing and updating, version increase to 1
* After golive, if document have any changes, version increase to

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| **Maker** | *Name: Date: <dd/MM/yyyy>*  *Role:* |
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**MỤC LỤC**

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# Introduction

## Purpose of document

## Scope

## Term and acronyms

|  |  |  |
| --- | --- | --- |
| Term/Acronyms | Full name | Meaning |
| HR | Humman resource | Infoplus staff management |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## References

|  |  |  |
| --- | --- | --- |
| No. | Name | Note |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |

# Overview

## General description

## Flow

N/A

## Models of overall use cases

### Use-case diagram



### Actors

|  |  |  |
| --- | --- | --- |
| Idx | Actor | Definition |
|  | Admin | Administrator |
|  | Manager | Manager group. |
|  | Staff | Staff group |
|  |  |  |
|  |  |  |

### Usecase

|  |  |  |
| --- | --- | --- |
| Idx | Usecase | Note |
|  | Login | Apply for all user |
|  | Configuration |  |
|  | Check-in/check-out |  |
|  | Request leaving |  |
|  | Request overtime |  |
|  | Approve leaving |  |
|  | Approve overtime |  |
|  | History | Inclulde leavinghistory and timecard history |
|  | Report |  |

## Integrations

N/A

## Switching

N/A

# Function requirements

## Check-in function

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/check-in | url | {  staffCode: <value>(\*),  checkIn: <value>(\*),  checkOut: <value>,  workingDate: <value>(\*)  } | {  code: <value>  Reason: <value>  } | Call Check-in controller |  |
| 2 | checkIn | Func | User loginUser,  TimeCardModel model | ResponseModel | Call check-in service.  If validation error, return RepsoneModel{ code = 14, content = “Validation error”}.  If mapping error, return ResponseModel{code = 15, content = “Mapping error”}.  If execute error, reuturn ResponseModel{code = 10,  Content= “Execution error”}  If success, return ResponseModel{code = 00,  Content = “Success”} | User is springsecurity model |
| 3 | Validation | Func | TimeCardModel model | Boolean | Validation key and not null data |  |
| 4 | modelToEntity | Func | TimeCardModel model | TblTimeCardEntity |  |  |
| 5 | insertTimeCard | Func | TblTimeCardEntity entity | Long | Insert into db |  |

## Check-out function

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/check-out | url | {  staffCode: <value>(\*),  checkIn: <value>,  checkOut: <value>(\*),  workingDate: <value>(\*)  } | {  code: <value>  Reason: <value>  } | Call Check-out controller |  |
| 2 | checkOut | Func | User loginUser,  TimeCardModel model | ResponseModel | Call check-out service.  If validation error, return RepsoneModel{ code = 14, content = “Validation error”}.  If mapping error, return ResponseModel{code = 15, content = “Mapping error”}.  If execute error, reuturn ResponseModel{code = 10,  Content= “Execution error”}.  If no data found, reuturn ResponseModel{code = 11,  Content= “No data found”}.  If success, return ResponseModel{code = 00,  Content = “Success”} | User is springsecurity model |
| 3 | validation | Func | TimeCardModel model | Boolean | Validation key and not null data |  |
| 4 | modelToEntity | Func | TimeCardModel model | TblTimeCardEntity |  |  |
| 5 | findById | Func | Long id | TblTimeCardEntity | Get timecard record by ID |  |
| 6 | updateTimeCard | Func | TlimeCardEntity entity | Void | Update fileds:  Checkout  In database |  |

## Change timecard information function

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/change-timecard | url | {  staffCode: <value>(\*),  checkIn: <value>,  checkOut: <value>(\*),  note: <value>(\*)  workingDate: <value>(\*)  } | {  code: <value>  Reason: <value>  } | Call change timecard controller |  |
| 2 | changeTimeCard | Func | User loginUser,  TimeCardModel model | ResponseModel | Call changTimeCard service.  If validation error, return RepsoneModel{ code = 14, content = “Validation error”}.  If mapping error, return ResponseModel{code = 15, content = “Mapping error”}.  If execute error, reuturn ResponseModel{code = 10,  Content= “Execution error”}.  If no data found, reuturn ResponseModel{code = 11,  Content= “No data found”}.  If success, return ResponseModel{code = 00,  Content = “Success”} | User is springsecurity model |
| 3 | validation | Func | TimeCardModel model | Boolean | Validation key and not null data |  |
| 4 | modelToEntity | Func | TimeCardModel model | TblTimeCardEntity |  |  |
| 5 | findById | Func | Long id | TblTimeCardEntity | Get timecard record by ID |  |
| 6 | updateTimeCard | Func | TlimeCardEntity entity | Void | Update fileds:  Check-in,  Check-out,  Note,  Changed-user,  Changed-date  In database |  |

## Get Time Card Information

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/get-timecard | url | {  staffCode: <value>,  groupCode: <value>,  workingDate: <value>  previousMonth: <value>,  previousQuarter: <value>,  fromDate: <value>,  toDate: <toDate>  } | {  {TimeCardModel model 01},  { TimeCardModel model 02},  { TimeCardModel model 03},  ….  { TimeCardModel model n}  } | Call get timeCard controller |  |
| 2 | getTimeCard | Func | SearchTimeCardModel model | List<TimeCardModel> |  |  |
| 3 | entityToModel | Func | List<TblTimeCardEntity> entities | List<TimeCardModel> |  |  |

## Import TimeCard information

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/import-timecard | url | ExcelFile dataFile | {  Code: <value>,  Reason: <value>,  total: <value>,  success: <value>  fail: <value>  } | Call import timeCard controller |  |
| 2 | importTimeCard | Func | User user, File dataFile | ResponseModel |  |  |
| 3 | ValidationFile | Func | File dataFile | Boolean |  |  |
| 4 | readData | Func | File dataFile | List<TimeCardModel> models | Convert data from file to model |  |
| 5 | fileToEntity | Func | File dataFile | TblFile |  |  |
| 6 | modelToEntity | Func | TimecardModel model | TblTimeCardEntity |  |  |
| 7 | insertTimeCard | Func | TblTimeCardEntity entity | Long |  |  |
| 8 | countExecuteData | Func | Long timeCardId | List<int> | If row execute, total += 1.  If execute success, success +=1.  If execute failed, fail +=1. |  |
| 9 | insertFile | Func | TblFile entity | Long |  |  |
| 10 | createResponseModel | Func | List<int> countExecuteDt | ResponseModel |  |  |

## Create leaving request

* + This function support for staff user. Every staff has 12 annual leaving days per year.
  + Leaving type includes: annual leave (default), maternity leave, unpaid leave…
  + The time off type includes: half time, full time, long time ( more than 1 days off)
  + It has 2 manager, the first one is the direct staff’s manager. The second is the manager will support approve if the first manager is outside.
  + The first manager will be set by system, user can not change.
  + System will count and give the user how many annual leaving day used.
  + If user used 12 annual leave, system will auto set leaving type is unpaid leave and can not change.

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/create-Leaving | url | {  staffCode: <value>,  LeavingType: <value>  TimeOffType: <value>,  fromDate: <value>,  toDate: <value>,  totalHour: <value>,  reason:<value>,  sendType: <value>,  managerCode01: <value>,  managerCode02: <value>  } | {  Code: <value>,  Reason: <value>  fail: <value>  } | Call createLeavingController |  |
| 2 | createLeaving | Func | User use, StaffLeavingModel model | ResponseModel |  |  |
| 3 | Validation | Func | StaffLeavingModel model | Boolean |  |  |
| 4 | modelToEntity | Func | StaffLeavingModel model | TblStaffLeavingEntity |  |  |
| 5 | insertLeaving | Func | TblStaffLeavingEntity entity | Long |  |  |
| 6 | getByCode | Func | String code (defaule: LEAVING\_TEMP) | TblEmailTemplateEnitty entity |  |  |
| 7 | createEmailTemplate | Func | TblEmailTemplateEnitty emailEntity,  TblStaffLeavingEntity Leavingentity | EmailTemplateModel model |  |  |
| 8 | sendEmail | Func | EmailTemplateModel model | void |  |  |

## Update leaving request

* + This function support for staff user.
  + If request haven’t sent to approve ( approve status = I ), user can update all information.
  + If request sent to approve, but haven’t approved yet ( approve status = W ), user can update the second manager person information, in case the first manager is outside.
  + When the second manager information changed, the system will send email base on the secod manager info.

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/leave/update-request | url | {  StaffLeavingId: <value>,  staffCode: <value>,  LeavingType: <value>  TimeOffType: <value>,  fromDate: <value>,  toDate: <value>,  totalHour: <value>,  reason:<value>,  sendType: <value>,  managerCode01: <value>,  managerCode02: <value>  } | {  Code: <value>,  Reason: <value>  fail: <value>  } | Call updateLeavingController |  |
| 2 | updateLeavingRequest | Func | User use, StaffLeavingModel model | ResponseModel |  |  |
| 4 | modelToEntity | Func | StaffLeavingModel model | TblStaffLeavingEntity |  |  |
| 5 | updateStaffLeaving | Func | TblStaffLeavingEntity entity | void |  |  |

## Send Leaving request

* + Function support staff.
  + After create leaving request, staff need send to manager to approve.
  + When request sent, system will send email to manager and cc to people in staff’s group and default email in list.

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/send-request-Leaving | url | {  LeavingId: <value>  } | {  Code: <value>,  Reason: <value>  } | Call requestLeavingController |  |
| 2 | requestLeaving | Func | User use, StaffLeavingModel model | ResponseModel |  |  |
| 3 | findById | Func | StaffLeavingModel model | TblStaffLeavingEntity |  |  |
| 4 | udpateLeaving | Func | TblStaffLeavingEntity entity | TblStaffLeavingEntity |  |  |
| 5 | insertLeaving | Func | TblStaffLeavingEntity entity | Long |  |  |
| 6 | getByCode | Func | String code (defaule: LEAVING\_TEMP) | TblEmailTemplateEnitty entity |  |  |
| 7 | createEmailTemplate | Func | TblEmailTemplateEnitty emailEntity,  TblStaffLeavingEntity Leavingentity | EmailTemplateModel model |  |  |
| 8 | sendEmail | Func | EmailTemplateModel model | void |  |  |

## Approve/deny leaving request

* + The function support manager.
  + Only manager who has information in leaving request can approve it.
  + Manager can use single approve or all approve.
  + Can not approve/ deny the request that processed.
  + After approve/deny, system will send email to staff, who make request.

### Flow



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Name** | **Type** | **Input** | **Output** | **Action** | **Note** |
| 1 | api/v1.0/infostaff/find-leaving-request | url | {  LeavingId: <value>,  fromDate:<value>,  toDate:<value>,  leavingType:<value>,  staffCode:<value>  } | {  Code: <value>,  Reason: <value>  } | Call findLeavingRequestController |  |
| 2 | requestLeaving | Func | User use, StaffLeavingModel model | ResponseModel |  |  |
| 3 | findById | Func | StaffLeavingModel model | TblStaffLeavingEntity |  |  |
| 4 | udpateLeaving | Func | TblStaffLeavingEntity entity | TblStaffLeavingEntity |  |  |
| 5 | insertLeaving | Func | TblStaffLeavingEntity entity | Long |  |  |
| 6 | getByCode | Func | String code (defaule: LEAVING\_TEMP) | TblEmailTemplateEnitty entity |  |  |
| 7 | createEmailTemplate | Func | TblEmailTemplateEnitty emailEntity,  TblStaffLeavingEntity Leavingentity | EmailTemplateModel model |  |  |
| 8 | sendEmail | Func | EmailTemplateModel model | void |  |  |

# Database

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblLocation** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| Location\_code | Varchar(10) | Y | N | N |  |
| Location\_name | Varchar(100) | N | N | N |  |
| Check\_in | Time | N | N | N |  |
| Check\_out | Time | N | N | N |  |
| Created\_user | Varchar(10) | N | Y | N |  |
| Created\_date | Date | N | Y | N |  |
| Record\_status | Char(1) | N | N | N | O: open |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblUser** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| User\_id | Bigint | Y | N | Y |  |
| User\_name | Varchar(20) | N | N | N |  |
| Enabled | Bit | N | N | N |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblRole** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| Role\_id | Bigint | Y | N | Y |  |
| Role\_name | Varchar(20) | N | N | N |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblUserRole** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| id | Bigint | Y | N | Y |  |
| User\_id | Bigint | N | N | N |  |
| Role\_id | Bigint | N | N | N |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblDepartment** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| Department\_id | Bigint | Y | N | Y |  |
| Department\_name | Varchar(100) | N | N | N |  |
| Created\_user | Varchar(10) | N | Y | N |  |
| Created\_date | Date | N | Y | N |  |
| Record\_status | Char(1) | N | N | N | O: open |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tbGroup** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| Group\_id | Bigint | Y | N | Y |  |
| Department\_id | Bigint | N | N | N |  |
| Group\_name | Varchar(100) | N | N | N |  |
| Created\_user | Varchar(10) | N | Y | N |  |
| Created\_date | Date | N | Y | N |  |
| Record\_status | Char(1) | N | N | N | O: open |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblStaff** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| **Staff\_code** | Varchar(10) | Y | N | N |  |
| Staff\_name | Varchar(100) | N | N | N |  |
| Join\_date | Date | N | N | N |  |
| Dob | Date | N | N | N |  |
| Gender | Char(1) | N | N | N | 1: male, 0: woman |
| *Location\_code* | Varchar(10) | N | N | N |  |
| File\_name | varchar(100) | N | Y | N |  |
| Created\_user | Varchar(10) | N | Y | N |  |
| Created\_date | Date | N | Y | N |  |
| Changed\_user | Varchar(10) | N | Y | N |  |
| Changed\_date | Date | N | Y | N |  |
| Record\_status | Char(1) | N | N | N | O: open, C: close |
| *Group\_code* | Bigint | N | N | N |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblTimeCard** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| **Id** | Bigint | Y | N | Y |  |
| **Staff\_code** | Varchar(10) | N | N | N |  |
| Working\_date | Date | N | N | N |  |
| Check\_in | Time | N | Y | N |  |
| Check\_out | Time | N | Y | N |  |
| Is\_checked | Bit | N | N | N |  |
| Note | Varchar(200) | N | Y | N |  |
| File\_name | Varchar(200) | N | Y | N |  |
| Created\_user | Varchar(10) | N | N | N |  |
| Created\_date | Date | N | N | N |  |
| Changed\_user | Varchar(10) | N | N | N |  |
| Changed\_date | Date | N | N | N |  |
| Record\_status | Char(1) | N | N | N | O: open, C: close |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblLeavingType** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| leaving\_code | Varchar(10) | Y | N | N |  |
| leaving\_name | Varchar(100) | N | N | N |  |
| Created\_user | Varchar(10) | N | N | N |  |
| Created\_date | Date | N | N | N |  |
| Record\_status | Char(1) | N | N | N | O: open, C: close |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblEmailTemplate** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| template\_code | Varchar(10) | Y | N | N |  |
| template\_content | Varchar(100) | N | N | N |  |
| default\_code\_recv\_01 | Varchar(10) | N | Y | N |  |
| default\_code\_recv\_02 | Varchar(10) | N | Y | N |  |
| default\_code\_recv\_03 | Varchar(10) | N | Y | N |  |
| default\_code\_recv\_04 | Varchar(10) | N | Y | N |  |
| default\_code\_recv\_05 | Varchar(10) | N | Y | N |  |
| Created\_user | Varchar(10) | N | N | N |  |
| Created\_date | Date | N | N | N |  |
| Record\_status | Char(1) | N | N | N | O: open, C: close |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **tblStaffLeaving** | | | | |
| **Name** | **Type** | **Is KEY** | **Is NULL** | **Is AU** | **Default value** |
| Id | Bigint | Y | N | Y |  |
| *Staff\_code* | Varchar(10) | Y | N | N |  |
| *Leaving\_type* | Varchar(10) | N | N | N |  |
| *TimeOff\_Type* | Varchar(10) | N | N | N | HALF: half time  FULL: full time  LONG: more than a day |
| From\_date | Date | N | N | N |  |
| To\_Date | Date | N | N | N |  |
| Reason | Varchar(200) | N | N | N |  |
| Manager\_Code\_01 | Varchar(10) | N | N | N |  |
| Manager\_Code\_02 | Varchar(10) | N | Y | N |  |
| Comment | Varchar(200) | N | Y | N |  |
| Approve\_Status | Char(1) |  |  |  | I: init  W: wait to approve  A: approved  D: deny |
| File\_name | varchar(100) | N | Y | N |  |
| Created\_user | Varchar(10) | N | Y | N |  |
| Created\_date | Date | N | Y | N |  |
| Changed\_user | Varchar(10) | N | Y | N |  |
| Changed\_date | Date | N | Y | N |  |
| Approved\_user | Varchar(10) | N | Y | N |  |
| Approved\_date | Date | N | Y | N |  |
| Record\_status | Char(1) | N | N | N | O: open, C: close |

# Appendix