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| |  |  |  |  | | --- | --- | --- | --- | | **logo ngan.png** | | **MINISTRY OF EDUCATION AND TRAINING** | | | **FPT UNIVERSITY** | | |
| Capstone Project Document |
| Maid Services |
| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | **Group 06 – Report 1** | | | **Group member** | Bùi Tiến Tuân - Team Leader - SE60824  Mạnh Quang Tuyến - Team Member - SE60890  Trương Hải Đăng - Team Member - SE60841  Nguyễn Tấn Công - Team Member - SE60920 | | **Supervisor** | Mr. Nguyễn Trọng Tài | | **Ext. Supervisor** | N/A | | **Capstone Project code** | MS | | |

-Ho Chi Minh City, 09/2014-

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## User Requirement Specification

|  |  |
| --- | --- |
| Actor | Description |
| **Guest** | A person not login. They have some simple function search. |
| **Staff** | A person help staff and customer connect together and post job request for Maid |
| **Customer** | Hiring maids. They can search, comment rating for job request posted by Maid or Maid Mediator. |
| **Maid Mediator** | They help maid post job request. |
| **Maid** | They can post job request. |
| **Webmaster** | They manager website. |
| **System** | Implement suggestions. |

### Guest requirement

To satisfy the demand of guest, system has these functions:

* **Register account:** guest need to register to become member.
* **Login**: when guest have account they can login with username and password.
* **Search jobs:** guest can search information about jobs, before they determine become a member.

### Staff requirement

A person: to manage the maid’s request, fee and allow maid to post request.

* **Manage post time**: staff manage maid’s request post time.
* **View post time**: staff can allow customer and maid the time that maid’s request posted.
* **Manage fee**: staff can manage the customer’s fee, maid’s fee
* **Confirm request**: staff can allow the maid’s request to post to the website.

### Customer requirement

A person:

* **Search maids**:
* **Rating**:
* **Comment**:
* **Manage recruitment**:
* **View customer statistic**:

### Maid mediator requirement

A person:

* **Apply job**:
* **Search jobs**:
* **Manage job request**:
* **View maid statistic**:

### Maid requirement

A person:

* **M**:

### Webmaster requirement

A person:

* **Manager user**:

### System requirement

A person:

* **Suggests**:
* **Handle unconfirmed request**:
* **Notify**:

## System Requirement Specification

### External Interface Requirements

#### User Interfaces

* The general interface of website is simple and simplifies user interfaces.
* The design is simple and monochrome is more prefer.
* The layout of information in page is showing simple but full of functions.
* The error, warning and notification messages must be simple, neat, and easy to understand. Error warning does not discomfort to the user.
* The working layout of user is spacious.
* Member can contact with manager and admin easily.

#### Hardware Interfaces

There is no extra hardware interfaces are needed. The system will use the standard hardware and data communications resources of a standard computer.

#### Software Interfaces

Browsers: Firefox, Chrome

#### Communications Protocol

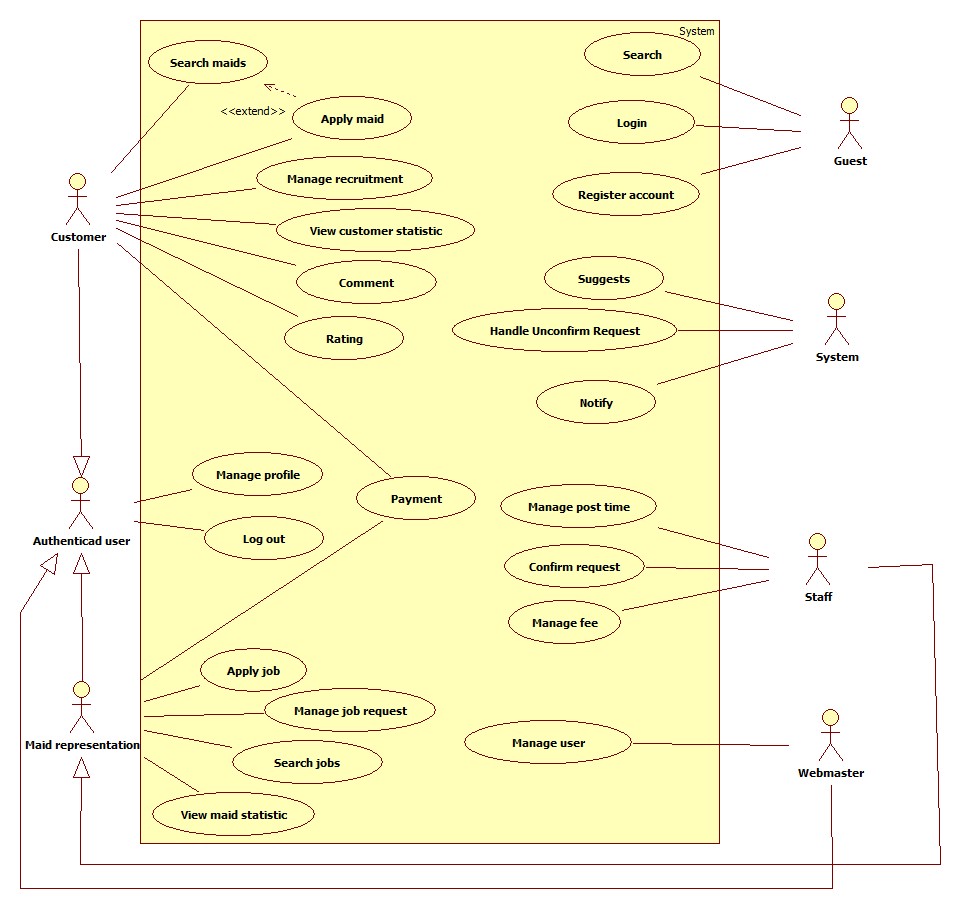
BSF website uses HTTP/HTTPS protocol for communication with the web browser and the web server. In addition, TCP/IP network protocol for communication with HTTP protocol

### System Features

#### List of use case

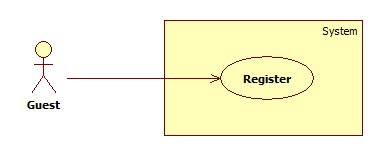
|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Use case name | Use case ID | Guest | Staff | Customer | Maid mediator | Authenticad user | Webmaster | System |
| 1 | Register account | 001 | x |  |  |  |  |  |  |
| 2 | Login | 002 | x |  |  |  |  |  |  |
| 3 | Search | 003 | x |  |  |  |  |  |  |
| 4 | Manage post time | 004 |  | x |  |  |  |  |  |
| 5 | Confirm request | 005 |  | x |  |  |  |  |  |
| 6 | Manage fee | 006 |  | x |  |  |  |  |  |
| 7 | Advance search maids | 007 |  |  | x |  |  |  |  |
| 8 | Manage recruitment | 008 |  |  | x |  |  |  |  |
| 9 | View customer statistic | 009 |  |  | x |  |  |  |  |
| 10 | Customer comment | 010 |  |  | x |  |  |  |  |
| 11 | Customer rating | 011 |  |  | x |  |  |  |  |
| 12 | Payment | 012 |  |  | x | x |  |  |  |
| 13 | Manage profile | 013 |  |  |  |  | x |  |  |
| 14 | Log out | 014 |  |  |  |  | x |  |  |
| 15 | Apply job request | 015 |  |  |  | x |  |  |  |
| 16 | Manage job request | 016 |  |  |  | x |  |  |  |
| 17 | Advance search jobs | 017 |  |  |  | x |  |  |  |
| 18 | View maid statistic | 018 |  |  |  | x |  |  |  |
| 19 | Suggests | 019 |  |  |  |  |  |  | x |
| 20 | Notify | 020 |  |  |  |  |  |  | x |
| 21 | Manage user | 021 |  |  |  |  |  | x |  |
| 22 |  | 022 |  |  |  |  |  |  |  |
| 23 |  | 023 |  |  |  |  |  |  |  |
| 24 |  | 024 |  |  |  |  |  |  |  |
| 25 |  | 025 |  |  |  |  |  |  |  |
| 26 |  | 026 |  |  |  |  |  |  |  |
| 27 |  | 027 |  |  |  |  |  |  |  |
| 28 |  | 028 |  |  |  |  |  |  |  |
| 29 |  | 029 |  |  |  |  |  |  |  |
| 30 |  | 030 |  |  |  |  |  |  |  |
| 31 |  | 031 |  |  |  |  |  |  |  |
| 32 |  | 032 |  |  |  |  |  |  |  |
| 33 |  | 033 |  |  |  |  |  |  |  |
| 34 |  | 034 |  |  |  |  |  |  |  |
| 35 |  | 035 |  |  |  |  |  |  |  |
| 36 |  | 036 |  |  |  |  |  |  |  |
| 37 |  | 037 |  |  |  |  |  |  |  |
| 38 |  | 038 |  |  |  |  |  |  |  |
| 39 |  | 039 |  |  |  |  |  |  |  |
| 40 |  | 040 |  |  |  |  |  |  |  |
| 41 |  | 041 |  |  |  |  |  |  |  |
| 42 |  | 042 |  |  |  |  |  |  |  |
| 43 |  | 043 |  |  |  |  |  |  |  |
| 44 |  | 044 |  |  |  |  |  |  |  |
| 45 |  | 045 |  |  |  |  |  |  |  |
| 46 |  | 046 |  |  |  |  |  |  |  |
| 47 |  | 047 |  |  |  |  |  |  |  |
| 48 |  | 048 |  |  |  |  |  |  |  |

#### Use Case model:



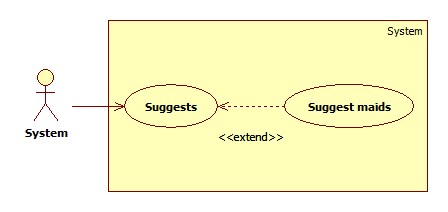
#### Use-case diagram

##### <Guest> Register



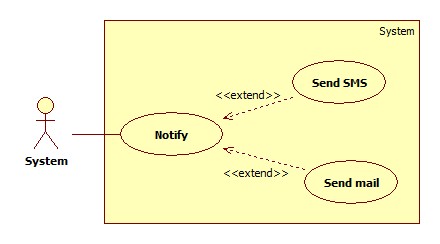
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| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC001 | **Use-case Version** | | 1.0 |
| **Use-case Name** | Register | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | High | |
| **Actor:** Guest  **Summary:** This use case allows guest create an account in website system.  **Goal:**  It helps guest to create an account on website.  **Trigger:** Click on the “Đăng ký” button to register on home page  **Pre-conditions:**   * Page is loaded successfully * Register page will be shown   **Post conditions:**   * Success: Register successfully, guest will have an account in system and will be logged into system. * Failure: Show message error.   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Click on “Đăng ký” button home page 2. Input right information about username, email, password, full name, city, district, address, phone 3. Click on the “Đăng ký” button [Alternative 1] | 2. System redirect to register page for guest, contain a register form :   * Tên tài khoản [Username: textbox ] * Mật khẩu [Password : textbox] * Nhập lại mật khẩu [Repassword : textbox] * Địa chỉ email [Email: textbox]   In format: /^([a-zA-Z0-9\_\.\-])+\@(([a-zA-Z0-9\-])+\.)+([a-zA-Z0-9]{2,4})+$/ .   * Họ và tên [Fullname : textbox] * Địa chỉ [Address : textbox] * Thành Phố [City : textbox] * Số điện thoại[Phone : textbox] * Đóng[button] * Đăng ký[button]  1. Validate valid username and check with the green check 2. Redirect to register success page [Exception 1,2 3,4] |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. [Alternative 1] Click on the “Đóng” button. | 1. Back to home page |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. “Tên đăng nhập”,”Mật khẩu” ,”nhập lại mật khẩu” “Email” text-box is empty 2. When fills username is more than 32 characters or less than 6 characters 3. When user fills password is more than 32 characters or less than 6 characters 4. When user fills password and re-password different 5. User input wrong confirm captcha | 1. Display message:” Vui lòng nhập chính xác thông tin yêu cầu.” 2. Display message “Tên đăng nhập phải từ 6 đến 32 ký tự” 3. Display message “Mật khẩu trong khoảng từ 6-32 kí tự!” 4. Display message” Mật khẩu nhập lại chưa chính xác !” 5. Display message “Kết quả không chính xác, bạn hãy thử lại.” |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

##### <System> Suggest



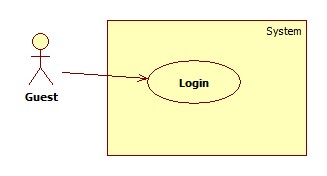
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| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC019 | **Use-case Version** | | 1.0 |
| **Use-case Name** | Suggest maids | | | |
| **Author** | TuanBT | | | |
| **Date** | 24/09/2014 | **Priority** | High | |
| **Actor:** System  **Summary:** system automatically suggest maids for customer when they post a recruitment on MS-Website.  **Goal:**  The use case will help MS-Website suggest maids for customer when they post a recruitment.  **Trigger:**   * Click [Yêu cầu công việc] button. * Fill all data. * Click [Đăng yêu cầu] button.   **Pre-conditions:**   * Post an invalid recruitment.   **Post conditions:**   * Success: List maid will appear by suggestion criteria. * Failure: List maid upcoming will appear by create date order.   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. User click on the [Đăng yêu cầu] button.   [Alternative 1] | 1. Show list jobs request by suggest criteria.   [Exception 1] |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. User click on the [Đăng yêu cầu] button. | 1. Show list jobs request by suggest criteria. |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. System fail to load data | 1. Show list jobs request |   **Relationships:** N/A  **Business Rules:**  When customer post a recruitment, system calculate jobs request this nearer than recruitment. | | | | |

##### <System> Notify



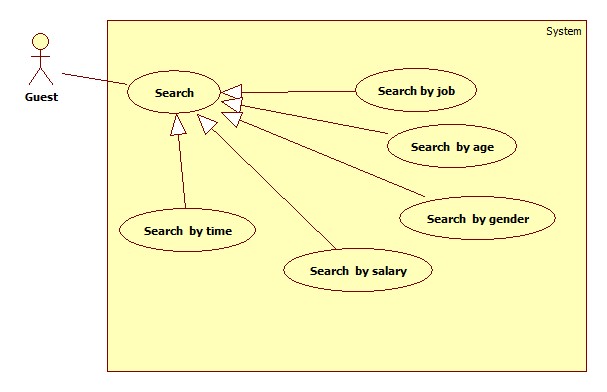
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| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC020 | **Use-case Version** | | 1.0 |
| **Use-case Name** | Notify | | | |
| **Author** |  | | | |
| **Date** | 24/09/2014 | **Priority** | Normal | |
| **Actor:** System  **Summary:** Notify for Maid and Customer when they apply together.  **Goal:**  Send mail and SMS to Maid and Customer when apply. System know when accept a job.  **Trigger:** Both Customer and Maid post an invalid recruitment and job request. They apply together.  **Pre-conditions:**   * Apply success.   **Post conditions:**   * Success: Send email and SMS * Failure: An error message on screen   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. System receive Customer and Maid apply | 2 Send email and SMS  [Exception 1] |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | N/A | N/A |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Email or phone number is blank | 1. Show error “Không thể gửi email hoặc tin nhắn” |   **Relationships:** N/A  **Business Rules:** System must send email or SMS, help maid or customer know when request of them apply. | | | | |

##### <Guest> Login



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC002 | **Use-case Version** | | 1.0 |
| **Use-case Name** | Login | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | High | |
| **Actor: Guest**  **Summary:** This use case allow guest to login the website  **Goal:** Guest become a member of the website  **Trigger:** Click on the “Đăng nhập” button to login on home page  **Pre-conditions:**   * Page is loaded successfully * The login page will shown   **Post conditions:**   * Success: Login successfully, guest will have a role in system and can use more function of system. * Failure: Show message error   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Click on “Đăng nhập” button home page 2. Input right information about username, password 3. Click on the “Đăng nhập” button | 1. System redirect to login page for guest, contain a login form :  * Tên tài khoản [Username: textbox ] * Mật khẩu [Password : textbox] * Đóng [button] * Đăng nhập [button]  1. Redirect to login successful page |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. [Alternative 1] Click on the “Đóng” button. | 1. Back to home page |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. “Tên đăng nhập”,”Mật khẩu” ,” is empty 2. “Tên đăng nhập”,”Mật khẩu” ,” is incorrect | 1. Display message “Vui lòng nhập tên đăng nhập và mật khẩu” 2. Display message “Tên đăng nhập hoặc mật khẩu không đúng, vui lòng thử lại” |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

##### <Guest> Search



###### **<Guest> Search by job**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC003a | **Use-case Version** | | 1.0 |
| **Use-case Name** | Search by name | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | High | |
| **Actor: Guest**  **Summary:** This use case allow guest can search information by job  **Goal:** Guest can search information by search job  **Trigger:** Fill in “Tìm kiếm” textbox, then click on “Tìm kiếm” button  **Pre-conditions:**   * Page is loaded successfully * The search page will shown   **Post conditions:**   * Success: Search successfully, the system will shown search result * Failure:   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Fill in “Tìm kiếm” text box 2. Click on “Tìm kiếm” button 3. Click on “Nấu ăn” or “trông trẻ” link | 1. System redirect to search page for guest 2. Show the result suitable for each link |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. [Alternative 1] Click on the “Đóng” button. | 1. Back to home page |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | |  |  |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

###### **<Guest> Search by age**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC003a | **Use-case Version** | | 1.0 |
| **Use-case Name** | Search by age | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | High | |
| **Actor: Guest**  **Summary:** This use case allow guest can search information by age  **Goal:** Guest can search information by search age  **Trigger:** Fill in “Tìm kiếm” textbox, then click on “Tìm kiếm” button  **Pre-conditions:**   * Page is loaded successfully * The search page will shown   **Post conditions:**   * Success: Search successfully, the system will shown search result * Failure:   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Fill in “Tìm kiếm” text box 2. Click on “Tìm kiếm” button 3. Click on “25-30” or “30-35” or “35-40” link | 1. System redirect to search page for guest 2. Show the result suitable for each link |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. [Alternative 1] Click on the “Đóng” button. | 1. Back to home page |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | |  |  |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

###### **<Guest> Search by salary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC003a | **Use-case Version** | | 1.0 |
| **Use-case Name** | Search by salary | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | High | |
| **Actor: Guest**  **Summary:** This use case allow guest can search information by salary  **Goal:** Guest can search information by search salary  **Trigger:** Fill in “Tìm kiếm” textbox, then click on “Tìm kiếm” button  **Pre-conditions:**   * Page is loaded successfully * The search page will shown   **Post conditions:**   * Success: Search successfully, the system will shown search result * Failure:   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Fill in “Tìm kiếm” text box 2. Click on “Tìm kiếm” button 3. Click on “Dưới 3 triệu” or “3-5 triệu” or “trên 5 triệu” link | 1. System redirect to search page for guest 2. Show the result suitable for each link |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. [Alternative 1] Click on the “Đóng” button. | 1. Back to home page |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | |  |  |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

###### **<Guest> Search by time**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC003a | **Use-case Version** | | 1.0 |
| **Use-case Name** | Search by time | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | High | |
| **Actor: Guest**  **Summary:** This use case allow guest can search information by time  **Goal:** Guest can search information by search time  **Trigger:** Fill in “Tìm kiếm” textbox, then click on “Tìm kiếm” button  **Pre-conditions:**   * Page is loaded successfully * The search page will shown   **Post conditions:**   * Success: Search successfully, the system will shown search result * Failure:   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Fill in “Tìm kiếm” text box 2. Click on “Tìm kiếm” button 3. Click on “Cách đây 1 ngày” or “Cách đây 3 ngày” or “Cách đây 5 ngày” or “Cách đây 7 ngày” or “Cách đây 14 ngày” or “Cách đây 30 ngày” link | 1. System redirect to search page for guest 2. Show the result suitable for each link |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. [Alternative 1] Click on the “Đóng” button. | 1. Back to home page |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | |  |  |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

###### **<Guest> Search by gender**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC003a | **Use-case Version** | | 1.0 |
| **Use-case Name** | Search by gender | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | High | |
| **Actor: Guest**  **Summary:** This use case allow guest can search information by gender  **Goal:** Guest can search information by search name  **Trigger:** Fill in “Tìm kiếm” textbox, then click on “Tìm kiếm” button  **Pre-conditions:**   * Page is loaded successfully * The search page will shown   **Post conditions:**   * Success: Search successfully, the system will shown search result * Failure:   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Fill in “Tìm kiếm” text box 2. Click on “Tìm kiếm” button 3. Click on “Nam” or “Nữ” link | 1. System redirect to search page for guest 2. Show the result suitable for each link |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. [Alternative 1] Click on the “Đóng” button. | 1. Back to home page |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | |  |  |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

##### <Guest> View jobs details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **USE CASE SPECIFICATION** | | | | |
| **Use-case No.** | UC003 | **Use-case Version** | | 1.0 |
| **Use-case Name** | View jobs details | | | |
| **Author** | CongNT | | | |
| **Date** | 21/09/2014 | **Priority** | Normal | |
| **Actor: Guest**  **Summary:** This use case allow guest to see jobs details  **Goal:** All jobs details are shown to guest  **Trigger:** Guest goes to visit the home page  **Pre-conditions:**   * Page is loaded successfully   **Post conditions:**   * Success: View all jobs details to guest   **Main Success Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Go to the home page of website | 2. View all Jobs details |   **Alternative Scenario:**   |  |  | | --- | --- | | Actor Action | System Response | |  |  |   **Exceptions:**   |  |  | | --- | --- | | Actor Action | System Response | | 1. Server is busy or has problems | 1. Display message “There are too many connections. Please try again after 10 minutes” |   **Relationships:** N/A  **Business Rules:** N/A | | | | |

### Software System Attributes

#### Reliability

* There is no requirement for system maintenance task from the user.
* Mean Time Between Failures (MTBF): more than 6 months.
* Accuracy: 100%.
* Maximum Bugs and Defect Rate: 0.3 bugs per thousand lines of code (0.3bugs/KLOC).
* Critical bugs:
* Loss of data: not any

#### Availability

* The server shall be working 24 hours per day and 7 days per week.

#### Security

* *All sensitive* information (password, etc.) must be hashed when storing in database and during transmission over networks using MD5 hash.
* Validate input data in SQL query before execute to avoid SQL Injection, XSS
* The role of user and member is clearly.

#### Maintainability

* All code shall fully document. All program files shall include comments concerning authorship and date of last change.
* The code shall be modular to permit future modifications.

#### Portability

* The software will design as cross-platform software.

#### Performance

* Large tables and indexes must be partitioned data into smaller, more manageable sections by using partition in SQL Server 2008 R2

## Entity Relationship Diagram or Data Structures



## Other material (if any)

N/A