**MẠNG XÃ HỘI GJOBS**

**TÀI LIỆU PHÂN TÍCH VÀ ĐẶC TẢ  
YÊU** **CẦU PHẦN MỀM**

**Tp HCM, 04/2015**

**BẢNG GHI NHẬN THAY ĐỔI TÀI LIỆU**

| **Ngày thay đổi** | **Vị trí thay đổi** | **Lý do** | **Nguồn gốc** | **Phiên bản cũ** | **Mô tả thay đổi** | **Phiên bản mới** |
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**Các chức năng ở giai đoạn 2**

# General

## Loads contents for wall

Sơ đồ DFD:



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| **Use case:** loads contents for wall |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** Actors refresh the wall |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Base on email of actors. The system loads all following items based on the changing time of the last action:   * Status that the actors post. * Status that the actors care. * Status from their groups of career, groups of school * Status from followed individuals, followed companies * Status that followed individual or companies has commented * Status that friends care * Status that friends comment * Status that your connections, followed individuals or connections are shared * Status that has comment cared by your connection, your followed individuals or companies. * Employments from followed companies * Status that is shared by other   An element of the list:   * Status that the actors post or followed individual or companies post: avatar or logo of poster,name of poster, state of status (There is someone who has just comment to the status,... Just now-1 minute), content, posting time, numbers of caring, numbers of comments, numbers of sharing * Comments: avatar or logo of poster, name of poster, content, number of caring, number of comments * Status from group: name of group, avatar or logo of poster,name of poster, state of status (There is someone who has just comment to the status,... Just now-1 minute), content, posting time, numbers of caring, numbers of comments, numbers of sharing * Status is issued from your connections, followed individuals or companies, Status that is shared by other: avatar and name of followed individuals or companies, name of action that followed individuals and companies do ,avatar or logo of poster,name of poster, state of status (There is someone who has just comment to the status,... Just now-1 minute), content, posting time, numbers of caring, numbers of comments, numbers of sharing * Status of employment: avatar of poster, name of company, content (name of job, location for working, career, salary), state of status, content, posting time, numbers of caring, numbers of comments, numbers of sharing.   N2. The system displays the list of changes of status based on timeline |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Status, suggested companies related to actors are showed |

## Care a status

Sơ đồ DFD:



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| **Use case:** care a status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** Actors click care |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their email or id and id of the status.  N2. The system saves information of “care” including id of actors and id of the status into database.  N3. The system saves the action “care a status” into log table (id of account, type of action, id of status, caring time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Care a status |

## Uncare a status

Sơ đồ DFD:



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| **Use case:** uncare a status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** Actors click uncare |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id and id of status.  N2. The system removes relationship “care” status of actor from database  N3. The system saves the action “uncare a status” into log table (id of account, type of action, id of status, uncaring time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  uncare a status |

## Care a comment

Sơ đồ DFD:



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| --- |
| **Use case:** care a comment |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** Actors click care |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id of actor and id of the status, id of cared comment  N2. The system saves their id and id of the status, id of cared comment, time into database.  N3. The system saves the action “care a comment” into log table (id of account, type of action, id of status, id of comment, caring time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Care a comment |

## Uncare a comment

Sơ đồ DFD:



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| --- |
| **Use case:** uncare a comment |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** Actors click uncare |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id and id of status, id of comment  N2. The system removes relationship “care” comment of the status of actor from database  N3. The system saves the action “uncare a comment” into log table (id of account, type of action, id of status, id of comment, uncaring time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  uncare a comment |

## Share status

Sơ đồ DFD:



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| **Use case:** share status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** share status |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their email or id, id of status, id or email of receiver (individuals or companies)  N2. The system save id of actor, id of status, id of receiver, time to database  N3. The system adds sharing notification (id of actor, id of receiver, status id, time)  N4. The system saves the action “share comment” into log table (id of account, type of action, id of status, id of receiver, sharing time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Status is shared |

## Post status

Sơ đồ DFD



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| --- |
| **Use case:** post status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** post status |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their email or id, content of status. Content of status includes:  A link to a website  Text  File:(firstly, provide the directory of file in local computer. Secondly, up the file to server. Then, add new directory to the content of status)  N2. The system save id or email of actors, content of status, time to database  N3. The system saves the action “post status” into log table (id of account, type of action, id of status, posting time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New status |

## Delete status

Sơ đò DFD:



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| --- |
| **Use case:** delete status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors delete status |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of status  ~~N2. The system removes the status, all comments, all relationship (care status, care comment, share,) from database~~  N2. The system sets the status to removing state  N3. The system saves the action “delete status” into log table (id of account, type of action, id of status, deleting time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Status is deleted |

## Comment to status

Sơ đồ DFD:



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| --- |
| **Use case:** comment to status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** Actors comment to a status |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their email or id, id of status, content of comment  N2. The system save id of actor, id of status, content of comment, time to database  N3. The system adds a notification to owner of the status (owner of the comment, id of owner of status, status id, comment id, time)  N4. The system saves the action “comment to status” into log table (id of account, type of action, id of status, id of comment, commenting time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New comment to status |

## Comment to a comment

Sơ đồ DFD:



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| --- |
| **Use case:** comment to a comment |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** Actors comment to a comment |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their email or id, id of status, content of comment, id of comment that commented  N2. The system save id of actor, id of status, content of comment, id of comment that commented, time to database  N3. The system gets statusId of comment that actors comment and add comment-comment notification (actorId, statusId, **id of owner of status**, host comment, newcommentId, time) to *CommentToStatusNotification,* to *Comment\_CommentNotification*  N4. The system saves the action “comment to comment” into log table (id of account, type of action, id of status, id of comment (that is commented), commenting time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New comment to comment |

## Delete a comment

Sơ đồ DFD:



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| **Use case:** delete a comment |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors delete a comment |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of comment  N2. The system removes comments, all relationship (care comment,) from database  ~~N2. The system sets the comment to removing state~~  N3. The system saves the action “delete comment” into log table (id of account, type of action, id of comment, deleting time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  comment is deleted |

## Load recent activities

Sơ đồ DFD:



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| **Use case:** load recent activities |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actor logged in to the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id or email  N2. The system load logItems from log table, that are acted by actor based on id or email and logItems are sorted by time. N latest actions will be showed first.  N3. Show logitems to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Logitems |

## Add connection

Sơ đồ DFD:

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| **Use case:** add connection |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors want to have a connection with others |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of receiver (who the actors want to connect), inviting message  N2. The system creates a adding connection notification (id of actor, id of receiver, inviting message) to database and wait for answering from receiver |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New connection notifications |

## Notify for adding connections

Sơ đồ DFD:



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| **Use case:** Notify for adding connections |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in to the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id  N2. The system load N connection notification item (id of notification, id of connection, id of sender- email of sender, id of target- email of target, id of answer (accept, not accept), state (answered or not answered)) that is not answered based on id of account.  N3. The system shows connection notifications to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Connection notifications are showed to actors |

## Answer connection notifications

Sơ đồ DFD:



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| **Use case:** Answer connection notifications |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors answer the connection notifications |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of connection notification, id of connection, id of type of answers (accept or not accept)  N2. The system creates, actives connection (id of actor1, id of actor2, time) to database  N3. The system saves action “accept connection” to log table (id of actor, id of connection, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Connection notifications are showed to actors |

## Notify new messages (from chatting)

Sơ đồ DFD:



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| **Use case:** notify about new message |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id,  N2. The system loads message notification (id of notification, id of message, id of sender, id of receiver)  N3. The system shows the message notification to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Message notifications are showed |

## Read notification of new messages (chatting)

Sơ đồ DFD:



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| **Use case:** Read notification of new messages (chatting) |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors click button read or click on notification |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id of notification  N2. The system saves the answer (id of notification, type of answer (read already)) to database  N3. Show the conversation to actor (when actor click on notification) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification is read |

## Notify when there is a user who comments on your status

Sơ đồ DFD:



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| **Use case:** Notify when there is a user who comments on your status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id  N2. The system bases on ids of status of the actors to get N notifications of new comments of others for the status that the actor haven’t read them yet (id of notification, id of status, id of the user who comment, id of comment, state-read or not read)  N3. The system shows the notifications of new comments to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notifications of new comments are showed |

## Read notification when a user comment on your status

Sơ đồ DFD:



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| --- |
| **Use case:** Read notification when a user comment on your status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors click button read or click on notification |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id of notification  N2. The system saves the answer (id of notification, type of answer (read already)) to database  N3. Show status containing new comment based on id of status |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification is read |

## Notify when there is a new comment for a comment of your status

Sơ đồ DFD:



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| **Use case:** Notify when there is a new comment for a comment of your status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id  N2. The system bases on ids of status of the actors to get N notifications of new comments of others for the comments of the status that the actor haven’t read them yet (id of notification, id of status, id of parental comment, id of the user who comment, id of new comment, state-read or not read)  N3. The system shows the notifications of new comments of the comments to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notifications of new comments of the comments are showed |

## Read notification when there is a new comment for a comment of your status

Sơ đồ DFD:



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| --- |
| **Use case:** Read notification when there is a new comment for a comment of your status |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors click button read or click on notification |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id of notification  N2. The system saves the answer (id of notification, type of answer (read already)) to database  N3. Show status to actors based on id of status get from notification |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification is read |

## Notify when there is a user who shares a status to you

Sơ đồ DFD:



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| **Use case:** Notify when there is a user who shares a status to you |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id  N2. The system bases on the id of actor to get a notification about a status shared to the actor by the other users. (id of notification, id of the sharing user, id of the shared user, id of status, state-read or not read)  N3. The system shows the notifications of sharing status to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notifications of sharing status are showed |

## Read notification when a user shares status to you

Sơ đồ DFD:



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| --- |
| **Use case:** Read notification when a user shares status to you |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors click button read or click on notification |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id of notification  N2. The system saves the answer (id of notification, type of answer (read already)) to database  N3. Show status that is shared to actors (based on id of shared status) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification is read |

## Notify when there is a new comment for your comment

Sơ đồ DFD:



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| --- |
| **Use case:** Notify when there is a new comment for your comment |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id  N2. The system bases on their id to get status that contains their comment and get status that have new comments for their status (haven’t read yet) (id of notification, id of actor, id of status, id of comment of actor, id of new comment, time)  N3. The system shows the notifications to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification for new comments of the actor’s comments |

## Read notification when there is a new comment for your comment

Sơ đồ DFD:



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| --- |
| **Use case:** Read notification when there is a new comment for your comment |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors click button read or click on notification |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id of notification  N2. The system saves the answer (id of notification, type of answer (read already)) to database  N3. Show status to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification is read |

## Notify when a group of career is shared to you

Sơ đồ DFD:



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| --- |
| **Use case:** Notify when a group of career is shared to you |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id (id of actors)  N2. The system bases on the id of actor to get a notification about sharing a group of career to the actor (id of notification, id of sender, id of group, id of actor (receiver), answer- accept or not accept)  N3. The system shows the notifications about sharing a group of career to the actor |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notifications about sharing a group of career to the actor are showed |

## Read notification when a group of career is shared to you

Sơ đồ DFD:



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| --- |
| **Use case:** Read notification when a group of career is shared to you |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors click button read or click on notification |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id of notification  N2. The system saves the answer (id of notification, type of answer (read already)) to database  N3. Redirect actors to page of group |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification is read |

## Accept for joining to a shared group of career

Sơ đồ DFD:



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| --- |
| **Use case:** Accept for joining to a shared group of career |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors click accept |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id of notification, id of group  N2. The system saves the answer (id of notification, type of answer (read already)) to database (notification has been read)  N3. The system adds the actor to the group  N4. The system saves log for action”join to a group of career” to database (id of actor, type of action, id of group, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-condition**  New member of group of career |

## Send messages (chatting)

Sơ đồ DFD:

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| --- |
| **Use case:** Send messages (chatting) |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id (id of actors), id of receiver, content of messages  N2. The system saves message (id of actors, id of receiver, content, time) to database.  N3. The system creates and show a notification to the receiver. |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New messages |

## Receive messages (chatting)

Sơ đồ DFD:



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| --- |
| **Use case:** Receive messages (chatting) |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors log in the system |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id (id of actors), id of users who the actor communicate with  N2. The system reads N latest messages in communication  N3. The system displays the messages to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Latest messages are showed |

## Follow an individual, company

Sơ đồ DFD:



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| --- |
| **Use case:** Follow an individual, company |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors want to follow an individual, company |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of other users they want to follow  N2. The system creates relationship “follow” (actor (id of actor) follows others (id of other users)) to database  N3. The system saves log of action “follow” to database (id of actor, type of action, id of followed users, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New following |

## Unfollow an individual, company

Sơ đồ DFD:



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| **Use case:** unfollow an individual, company |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors want to unfollow an individual, company |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of other users they want to unfollow  N2. The system removes relationship “follow” (actor (id of actor) follows others (id of other users)) from database  N3. The system saves log of action “unfollow” to database (id of actor, type of action, id of unfollowed users, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Following is removed |

## Payment

Sơ đồ DFD:



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| **Use case:** payment |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors want to proceed a payment |
| **Preconditions:**  Account is authenticated  System is running  Payment services are running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, list of items (id of item, amount)  N2. The system loads details of items (id of item, name of item, unit price) and calculate the total price (including discount) and shows them to actors  N3. The actors choose form of payment and provide information:  -visa card, master card: provides first\_name + last\_name, credit or debit card number, expiration date, security code , country and postal code  -paypal  N4: The system validates the provide information  N5. The system shows information of payment for reviewing:  -visa card, master card: list of item, unit price, amount, price, payment date, first name, last name, credit or debit number, expiration date, security code, country, postal code  -paypal: list of item, unit price, amount, price, payment date  N6. Payment:  -visa card, master card: do payment  -paypal: actors provide email and password, do payment  N7. The system receive confirmation form payment service providers and show notification to actors  ~~N8. The system saves log of action “payment” to database (id of account, type of action, type of payment, id of payment, time)~~ |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Proceeded payment |

## Upgrade

Sơ đồ DFD:



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| **Use case:** Upgrade |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** actors decide to upgrade to become a VIP account |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The system loads list of upgrading packages including id of package, name of package, unit price of package, amount  N2. Actors choose just one package that they want by providing id of that package and amount  N3. The system redirect actors to use case payment  N4. Payment is successful. The system set the state of account to VIP and save this state to database  N5. The system saves the log of action “upgrade” to database (id of account, type of action, id of package, amount, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  VIP Account |

# Individuals

## Insert suggested post about companies to list of changes in the wall of individuals

Sơ đồ DFD:



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| **Use case:** insert suggested companies to list of changes in the wall of individuals and companies |
| **Actor:** individuals (students, worker) |
| **Description:** |
| **Trigger:** Actors refresh the wall |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The system generates the suggested posts  A suggest post for follow:  Company for individual: logo, name of company, content contains introductory paragraph of the company.  N2. Insert the suggested posts into the list of changes of the wall of individuals and companies |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:** |

## Load suggested employments to individuals (worker)

Sơ đồ DFD:



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| **Use case:** load suggested employments to individuals |
| **Actor:** individuals ( worker) |
| **Description:** |
| **Trigger:** actors visit any page of their pages |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id of actors  N2. The system chooses **N** suggested employments (name of job, logo of company, name of company, location) based on actors (current job, skills, education) to show to actors for applying |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suggested employments are showed to actors |

## Load suggested groups of careers to individuals (worker)

Sơ đồ DFD:



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| --- |
| **Use case:** load suggested groups of careers to individuals |
| **Actor:** individuals ( worker) |
| **Description:** |
| **Trigger:** actors visit any page of their pages |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id of actors  N2. The system chooses **N** suggested groups of career (name of group of career, logo of group, numbers of members) based on actors (current job, education) to show to actors for applying |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suggested groups of careers are showed to actors |

## Search (advanced)

Sơ đồ DFD:



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| **Use case:** search (advanced) |
| **Actor:** individual (vip) |
| **Description:** |
| **Trigger:** |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide searching values of employments that they need (career, type of company, address, name of job of employments, level of position, numbers of experience years in need, name of school, name of major, degree)  N2. The system bases on searching values to search employments of companies |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suitable employments |

## Suggest 100 employments based on the last searching values saved

Sơ đồ DFD:



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| **Use case:** Suggest 100 employments based on the last searching values saved |
| **Actor:** VIP individual (student, worker) |
| **Description:** |
| **Trigger:** VIP individuals log in successfully |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The system loads searching values of actors based on id of actors  N2. The system search 100 max-match employments (career, type of company, address, name of job of employments, level of position, numbers of experience years in need, name of school, name of major, degree)  N3. The system shows results to suggestion place in profiles of the actors (just show N item- rest items will be showed when actors use use-case see more) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suggested employments |

## Statistic list of actors viewing your profile of individual

Sơ đồ DFD:



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| --- |
| **Use case:** Statistic list of actors viewing your profile of individual |
| **Actor:** individual (vip)(owner)(student, worker) |
| **Description:** |
| **Trigger:** Actors want to statistic list of actors viewing your profile of individual |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1.The system bases on id of the actors loads list of actors who view profile of the current individual from log table (just gets log of action “View basic information of other individuals”, “View full profile of other individuals”)  N2. The system shows N latest viewer (id of viewer, name of viewer (as link to profile) to actors (rest viewer will be loads in use-case “see more”) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  list of actors viewing a profile of the current individual |

## Advertise the profile of vip individuals to1000 companies

Sơ đồ DFD:



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| --- |
| **Use case:** View full profile of other companies |
| **Actor:** the system |
| **Description:** |
| **Trigger:** after individuals upgrade |
| **Preconditions:**  System is running  Database is up-to-date, on-line |
| **Normal course:** |
| **Alternative course:**  N1. The system loads all VIP individuals  N2. For each VIP individuals, the system gets 1000 random companies to introduce the VIP individuals profile (name, degree, experiences) to wall of company |
| **Exceptions:** |
| **Post-conditions:**  Profile of VIP individuals are introduced to companies |

## Introduce 100 companies to VIP individuals for following

Sơ đồ DFD:



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| --- |
| **Use case:** Introduce 100 companies to VIP individuals for following |
| **Actor:** the system (automatically) |
| **Description:** |
| **Trigger:** After individuals upgrade |
| **Preconditions:**  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The systems loads all current VIP individuals  N2. For each VIP individuals, the system loads 100 companies that has the same career with current job of the current VIP individuals  N3. The system suggests companies to the wall of the current VIP individuals for following |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Companies are suggested to individuals |

# Companies

## Search (advanced)

Sơ đồ DFD:



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| --- |
| **Use case:** search (advanced) |
| **Actor:** company (vip) |
| **Description:** |
| **Trigger:** |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide searching values of profiles (career, level of position, numbers of experience years, name of school, major at school, degree, age, gender, address)  N2. The system bases on searching values to search profiles of individuals  N3. The system saves searching values to database for suggestion in the future |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suitable profiles of individuals |

## Suggest 100 profiles of individuals based on the last searching values saved

Sơ đồ DFD:



|  |
| --- |
| **Use case:** Suggest 100 profiles of individuals based on the last searching values saved |
| **Actor:** VIP companies |
| **Description:** |
| **Trigger:** VIP companies log in successfully |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The system loads searching values of actors based on id of actors  N2. The system search 100 max-match profiles of individuals (career, level of position, numbers of experience years, name of school, major at school, degree, age, gender, address)  N3. The system shows results to suggestion place in profiles of the actors (just show N item- rest items will be showed when actors use use-case see more) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suggested profiles of individuals |

## Statistic list of actors viewing your profile of company

Sơ đồ DFD:



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| --- |
| **Use case:** Statistic list of actors viewing your profile of company |
| **Actor:** company (vip)(owner) |
| **Description:** |
| **Trigger:** Actors want to statistic list of actors viewing your profile of company |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1.The system bases on id of the actors loads list of actors who view profile of the current company from log table (just gets log of action “view full profile of other company”  N2. The system shows N latest viewer (id of viewer, name of viewer (as link to profile) to actors (rest viewer will be loads in use-case “see more”) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  list of actors viewing a profile of the current company |

## Advertise VIP companies to 1000 individuals (worker)

Sơ đồ DFD:



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| --- |
| **Use case:** Advertise VIP companies to 1000 individuals (worker) |
| **Actor:** the system (automatically) |
| **Description:** |
| **Trigger:** After companies upgrade |
| **Preconditions:**  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The systems loads all current VIP companies  N2. For each VIP company, the system loads 1000 random individuals and insert the post (name of company, introductory paragraph of company) to the wall of individuals for following |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Introductory post of company to individuals |

## Introduce employments of VIP company to individuals(worker)

Sơ đồ DFD:



|  |
| --- |
| **Use case:**Introduce employments of VIP company to individuals(worker) |
| **Actor:** the system (automatically) |
| **Description:** |
| **Trigger:** After companies upgrade |
| **Preconditions:**  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The systems loads all current VIP companies  N2. For each VIP company, the system loads current employment (deadline doesn’t meet).  N3. For each of employment of each company, the system chooses 100 profile of individuals (worker) who are suitable to details of employment and suggest the employment to suggesting place of individuals (worker) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Employments are introduced to suitable individuals (worker) |

# Groups

## Comment to status in group (of career, of schools)

Sơ đồ DFD:



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| **Use case:** comment to status |
| **Actor:** individuals (member of group or follower) (students, worker), companies (member of group or follower), |
| **Description:** |
| **Trigger:** Actors comment to a status in a group of career |
| **Preconditions:**  Actors are **members or follower** of a group of career  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their email or id, id of status, content of comment  N2. The system saves id of actor, id of status, content of comment, time to database  N3. The system saves id of actor, action, id of status, id of comment, id of group, time to log table |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New comment to the status in group (of career, of schools) |

## Groups of careers

### Load status in group of careers

Sơ đồ DFD



|  |
| --- |
| **Use case:** load status in groups of careers |
| **Actor:** Individuals (students, worker), companies |
| **Description:** |
| **Trigger:** individuals, companies want to load status |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id of group  N2. The system loads N status (avatar of poster, name of poster, Content, time, numbers of care, numbers of share, numbers of comment, posting time, list of people that commented on the status, comments (avatar of poster, name of poster, content, numbers of care, numbers of share, numbers of comments, posting time, numbers of people that comment to the specific comment)) based on the timeline.  N3. The system saves id of actors, action, id of group, into log table  N4. The system showed result to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  status are showed |

### Share an employment of group (of career)

Sơ đồ DFD:



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| --- |
| **Use case:** share an employment of group |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** individuals, companies want to share employments in group |
| **Preconditions:**  Actors are member of group  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id of group, id of employment, id of receiver  N2. The system add saved employments (jobs) into the list of shared employments of the actors (add shared employment item (id of actor, id of employment, shared time)) and add shared employment item to wall of receiver  N3. The system saves id of actors, action, id of group, id of employment, time into log table  N4. The system shows the result to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New shared employment |

### Display advertisements in groups of careers

Sơ đồ DFD:



|  |
| --- |
| **Use case:** Display advertisements in groups of careers |
| **Actor:** individuals (member of groups of career) (students, worker), companies (members) |
| **Description:** |
| **Trigger:** Actors enter the groups of careers |
| **Preconditions:**  Actors are members  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id, id of group  N2. The system loads suggested advertisements based on information of actors and id of group  N3. The system loads N suggested advertisements in groups of career (Images of advertisements) and displays to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suggested advertisements are showed in groups of career |

### Share a group of career to other users

Sơ đồ DFD:



|  |
| --- |
| **Use case:** Share a group of career to other users |
| **Actor:** individuals (students, worker) (visitors, members), companies (visitor, members) |
| **Description:** |
| **Trigger:** actors want to share a group to other users |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of group, id of receiver  N2. The system creates a notification item about sharing a group to other users (id of notification, id of actor, id of group, id of receiver, time, type of answer- accept or not accept, is answered or not answered ) to database  N3. The system saves a logItem of the action “sharing a group of career to the other users” to database (id of sender, action, id of receiver, id of group, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New notification about sharing a group to other users |

### Answer to notification inviting to join a group of career

Sơ đồ DFD:



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| **Use case:** Answer to notification inviting to join a group of career |
| **Actor:** individuals (students, worker) (visitors, members), companies (visitor, members) |
| **Description:** |
| **Trigger:** actors answer to notifications inviting to join a group of career |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of notifications (inviting to join a group of career), type of answer (join or not join – accept or not accept)  N2. Mark the notification as this is answered  N3. Processing the actor joins to the group or not (use case: join to a group of career) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Notification about inviting to join a group of career is proceed |

## Groups of schools

### Follow a group (group of schools)

Sơ đồ DFD:



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| **Use case:** follow to a group(group of schools) |
| **Actor:** individuals (students, worker), companies |
| **Description:** |
| **Trigger:** individuals, companies want to following a group of school |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id of actor, id of group (group of school)  N2. The system adds the members to group (save id of actor, relationship and id of group to database)  N3. The system saves id of actors, action, id of group , time into log table |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  New follower for the groups of school |

### Unfollow a group of school

Sơ đồ DFD:



|  |
| --- |
| **Use case:** Unfollow a group of school |
| **Actor:** individuals (students, worker) ( members), companies ( members) |
| **Description:** |
| **Trigger:** actors unfollow a group of school |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide their id, id of group of school  N2. The system checks whether actors are members of the group  N3. Remove id of actor from list of member of group of school  N4. The system saves log of action “unfollow group of school” to database (id of actor, type of action, id of group, time) |
| **Alternative course:**  A2-a. actors are not members  A2-a.1 notify to actors |
| **Exceptions:** |
| **Post-conditions:**  Actors don’t follow the group of school |

### Shows suggested groups of schools related to the group of school that users are viewing

Sơ đồ DFD:



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| **Use case:** show suggested groups of schools in the group of school for actors |
| **Actor:** individuals (member of groups of school or follower) (students, worker), companies (followers) |
| **Description:** |
| **Trigger:** Actors enter the groups of schools |
| **Preconditions:**  Actors are members or follower  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide id, id of group  N2. The system loads suggested groups of schools based on information of actors and id of group  N3. The system loads N suggested groups of schools (name of groups of school, location) and displays to actors |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Suggested groups of schools are showed |

# Administration

## Manage advertisement

### Add an advertisement

Sơ đồ DFD:



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| **Use case:** Add an advertisement |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** |
| **Trigger:** actors add new advertisement |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide advertisement (image), location  N2. Check whether there is any advertisement using this location  N3. The system saves advertisement, location to database  N4. The system saves log of action “add new advertisement” to database (id of actor, type of action, id of advertisement, location, time) |
| **Alternative course:**  A2-a.Location is using for other advertisement  A2-a.1 Notify to the actor  A2-a.2 Require removing the advertisement from this location before add new advertisement |
| **Exceptions:** |
| **Post-conditions:**  New advertisement |

### Remove an advertisement

Sơ đồ DFD:



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| --- |
| **Use case:** Remove an advertisement |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** |
| **Trigger:** actors remove new advertisement |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide location  N2. The system removes advertisement at this location  N3. The system saves log of action “remove new advertisement” to database (id of actor, type of action, id of advertisement, location, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  an advertisement is removed |

## Manage users

### View list of users and do statistics for numbers of users

Sơ đồ:



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| **Use case:** View list of users |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** the system admins wants to view the list of users including active users and inactive users and numbers of users |
| **Trigger:** actors require list of users including active users and inactive users |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The system loads lists of users including active users (id of users, email, password, registering time, active state) and inactive users (sorting based on id) and count the numbers of users -(just load N first users-rest of users will be load in use case see more)  N2. The system shows the list of users and numbers of users to actors  N2. The system saves log of action “view list of users ” to database (id of actor, type of action, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  List of users and numbers of users |

### View list of active users and do statistics for numbers of active users

Sơ đồ DFD:



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| --- |
| **Use case:** View list of active users |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** the system admins wants to view the list of active users and numbers of users |
| **Trigger:** actors require list of active users |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The system loads lists of users with active state (id of users, email, password, registering time, active state)(sorting based on id) and count the numbers of active users- (just load N first users-rest of users will be load in use case see more)  N2. The system shows list of active users and numbers of active users to actors  N3. The system saves log of action “view list of active users ” to database (id of actor, type of action, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  List of active users and numbers of active users |

## Statistics

### Do statistics about total viewing times in a duration

Sơ đồ DFD:



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| **Use case:** do statistics about total viewing times in a duration |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** the system admins wants to know how many viewing times there are in the specific duration |
| **Trigger:** actors want to do statistics about total viewing times in the duration |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. The actors provides the duration that they want to do statistics  N2. The system get Log-Item (id of actor, type of action - log in, time) about use case Sign-in of all users in the particular duration (except signing-in of system admin) and count the total viewing times  N3. The system shows the total viewing times to the actors  N4. The system saves log of action “Do statistics about total viewing times in a duration ” to database (id of actor, type of action, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  Total viewing times |

### Do statistics about number of active and inactive users (weekly, monthly, quarterly, half of year, yearly) (including the tables and chart – bar chart or line chart)

Sơ đồ DFD:



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| **Use case:** do statistics about number of active and inactive users (weekly, monthly, quarterly, half of year, yearly) (including the tables and chart – bar chart or line chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** the system admins wants to do statistics related to numbers of users (weekly, monthly, quarterly, half of year, yearly) |
| **Trigger:** actors want to do statistics about numbers of users |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide type of statistics (weekly, monthly, quarterly, half of year, yearly) and starting period and ending period, type of chart  N2. The system validates logic between type of statistics and starting period and ending period  N3. The system calculate numbers of time item (weekly, monthly, quarterly, half of year, yearly) between starting and ending period  N4. The system creates a list of users whose creating time is belong to time item for each time item and count the numbers of users for each time item  N5. The system creates the table and the chart for this figures  N6. The system shows the table and the chart to actors  N7. The system saves log of action “Do statistics about number of active and inactive users” to database (id of actor, type of action, time) |
| **Alternative course:**  E2-a. Relation of type of statistics (weekly,…) and starting period and ending period is wrong  E2-a.1 Notify to users |
| **Exceptions:** |
| **Post-conditions:**  Table and the chart for statistics about number of active and inactive users |

### Do statistics about number of active users (weekly, monthly, quarterly, half of year, yearly) (including the tables and chart – bar chart or line chart)

Sơ đồ:



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| --- |
| **Use case:** do statistics about number of active users (weekly, monthly, quarterly, half of year, yearly) (including the tables and chart – bar chart or line chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** the system admins wants to do statistics related to numbers of active users (weekly, monthly, quarterly, half of year, yearly) |
| **Trigger:** actors want to do statistics about numbers of active users |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide type of statistics (weekly, monthly, quarterly, half of year, yearly) and starting period and ending period, type of chart  N2. The system validates logic between type of statistics (weekly,…) and starting period and ending period  N3. The system calculate numbers of time item (weekly, monthly, quarterly, half of year, yearly) between starting and ending period  N4. The system creates a list of active users whose creating time is belong to time item for each time item and count the numbers of active users for each time item  N5. The system creates the table and the chart for this figures  N6. The system shows the table and the chart to actors  N7. The system saves log of action “Do statistics about number of active users” to database (id of actor, type of action, time) |
| **Alternative course:**  E2-a. Relation of type of statistics (weekly,…) and starting period and ending period is wrong  E2-a.1 Notify to users |
| **Exceptions:** |
| **Post-conditions:**  Table and the chart for statistics about number of active users |

### Do statistics about number of inactive users (weekly, monthly, quarterly, half of year, yearly) (including the tables and chart – bar chart or line chart)

Sơ đồ DFD:



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| **Use case:** do statistics about number of inactive users (weekly, monthly, quarterly, half of year, yearly) (including the tables and chart – bar chart or line chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** the system admins wants to do statistics related to numbers of inactive users (weekly, monthly, quarterly, half of year, yearly) |
| **Trigger:** actors want to do statistics about numbers of inactive users |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide type of statistics (weekly, monthly, quarterly, half of year, yearly) and starting period and ending period, type of chart  N2. The system validates logic between type of statistics (weekly,…) and starting period and ending period  N3. The system calculate numbers of time item (weekly, monthly, quarterly, half of year, yearly) between starting and ending period  N4. The system creates a list of inactive users whose creating time is belong to time item for each time item and count the numbers of inactive users for each time item  N5. The system creates the table and the chart for this figures  N6. The system shows the table and the chart to actors  N7. The system saves log of action “Do statistics about number of inactive users” to database (id of actor, type of action, time) |
| **Alternative course:**  E2-a. Relation of type of statistics (weekly,…) and starting period and ending period is wrong  E2-a.1 Notify to users |
| **Exceptions:** |
| **Post-conditions:**  Table and the chart for statistics about number of inactive users |

### Do statistics about proportion of numbers of students, individuals finding jobs, workers, companies in a specific period (pie chart)

Sơ đồ DFD:



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| **Use case:** Do statistics about proportion of numbers of students, workers, companies in a specific period (pie chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** Do statistics about proportion of numbers of students, workers, companies in a specific period (pie chart) |
| **Trigger:** actors want to make a pie chart for proportion of numbers of students, workers, companies in a specific period |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide a specific period for doing a pie chart  N2. The system gets all list of active users whose creating time is no later than the specific period and restore the state of working (studying, working, finding jobs) of the users based on *state change table* (studying<-> working<->finding a job), clusters users to student cluster, individual finding jobs cluster, worker cluster, company cluster.  N3. The system computes numbers of users in each cluster  N4. The system calculates the ratio of each cluster to the total active users of all clusters  N5. The system makes a pie chart and legend for each cluster  N6. The system shows the pie chart to actors  N7. The system saves log of action “Do statistics about proportion of numbers of students, workers, companies in a specific period” to database (id of actor, type of action, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  The pie chart for statistics about proportion of numbers of students, workers, companies in a specific period |

### Do statistics about numbers of follower of users (with starting period, ending period) (table, line chart, bar chart)

Sơ đồ DFD:



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| **Use case:** Do statistics about numbers of follower of users (with starting period, ending period) (table, line chart, bar chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** Actors want to do statistics about numbers of follower of users (with starting period, ending period) (table, line chart, bar chart) |
| **Trigger:** actors want to do statistics about numbers of follower of users (with starting period, ending period) (table, line chart, bar chart) |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide a specific starting period, ending period, type of chart  N2. The system gets all list of active users whose creating time is no later than the ending period and gets list of follower created between starting period and ending period.  N3. The system computes numbers of followers for each user during starting period and ending period.  N4. The system creates a table, a chart and show to actors  N5. The system saves log of action “Do statistics about numbers of follower of users (with starting period, ending period) (table, line chart, bar chart)” to database (id of actor, type of action, starting period, ending period, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  The chart for statistics about numbers of follower of users (with starting period, ending period) (table, line chart, bar chart) |

### Do statistics about numbers of care of users (with starting period, ending period) (table, line chart, bar chart)

Sơ đồ DFD:



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| **Use case:** Do statistics about numbers of care of users (with starting period, ending period) (table, line chart, bar chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** Actors want to do statistics about numbers of care of users (with starting period, ending period) (table, line chart, bar chart) |
| **Trigger:** actors want to do statistics about numbers of care of users (with starting period, ending period) (table, line chart, bar chart) |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide a specific starting period, ending period, type of chart  N2. The system gets all list of active users whose creating time is no later than the ending period and gets list of care created between starting period and ending period.  N3. The system computes numbers of care for each user during starting period and ending period.  N4. The system creates a table, a chart and show to actors  N5. The system saves log of action “Do statistics about numbers of care of users (with starting period, ending period) (table, line chart, bar chart)” to database (id of actor, type of action, starting period, ending period, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  The chart for statistics about numbers of care of users (with starting period, ending period) (table, line chart, bar chart) |

### Do statistics about numbers of status of users (with starting period, ending period) (table, line chart, bar chart)

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| **Use case:** Do statistics about numbers of status of users (with starting period, ending period) (table, line chart, bar chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** Actors want to do statistics about numbers of status of users (with starting period, ending period) (table, line chart, bar chart) |
| **Trigger:** actors want to do statistics about numbers of status of users (with starting period, ending period) (table, line chart, bar chart) |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide a specific starting period, ending period, type of chart  N2. The system gets all list of active users whose creating time is no later than the ending period and gets list of status created between starting period and ending period.  N3. The system computes numbers of status for each user during starting period and ending period.  N4. The system creates a table, a chart and show to actors  N5. The system saves log of action “Do statistics about numbers of status of users (with starting period, ending period) (table, line chart, bar chart)” to database (id of actor, type of action, starting period, ending period, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  The chart for statistics about numbers of status of users (with starting period, ending period) (table, line chart, bar chart) |

### Do statistics about numbers of viewed times of users (with starting period, ending period) (table, line chart, bar chart)

Sơ đồ DFD:



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| **Use case:** Do statistics about numbers of viewed times of users (with starting period, ending period) (table, line chart, bar chart) |
| **Actor:** admin, sub-admins (system admin) |
| **Description:** Actors want to do statistics about numbers of viewed times of users (with starting period, ending period) (table, line chart, bar chart) |
| **Trigger:** actors want to do statistics about numbers of viewed times of users (with starting period, ending period) (table, line chart, bar chart) |
| **Preconditions:**  Account is authenticated  System is running  Database is up-to-date, on-line |
| **Normal course:**  N1. Actors provide a specific starting period, ending period, type of chart  N2. The system gets all list of active users whose creating time is no later than the ending period and gets list of status created between starting period and ending period N3. For each user, The system gets all log-item “View basic information of other Indiviaduals”, “View full profile of other individuals” (the current actor is individuals (student, worker)), “View full profile of other companies” that target is the current actor and the actions happen between starting period and ending period  N4. The system counts numbers of retrieved logItems  N5. The system creates a table, a chart and show to actors  N6. The system saves log of action “Do statistics about numbers of viewed times of users (with starting period, ending period) (table, line chart, bar chart)” to database (id of actor, type of action, starting period, ending period, time) |
| **Alternative course:** |
| **Exceptions:** |
| **Post-conditions:**  The chart for statistics about numbers of viewed times of users (with starting period, ending period) (table, line chart, bar chart) |