Course Cast

Focused Use Cases

Version 2.0

Revision History

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| **Date** | **Version** | **Description** | **Author** |
| 11-14-07 | 1.0 | Focused Use Cases, Use Case Diagram, Activity Diagrams | XXXXXX |
| 12-5-07 | 2.0 | Update | XXXXXX |
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| **Use Case Number:** | UC1 | |
| **Use Case Name:** | Maintain Planned Course Work | |
| **Actor (s):** | [*Student*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc)*,* [*Advisor*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) | |
| **Maturity:** | Focused | |
| **Summary:** | [*Students*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc), or an [*Advisor*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) aiding a student, will create and maintain their [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) for future semesters. | |
| **Basic Course of Events:**  **(luồng nghiệp vụ chính)** | **Actor Action** | **System Response** |
| 1. Perform **{Login Authentication}** |  |
|  | 2. System displays welcome page with main features for actor to choose from. |
| 3. The use case begins when the Student actor selects to maintain planned coursework. **A1.** |  |
|  | 4. The system displays the [*student’s* *program of study*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) and also returns any previously planned [*course preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). |
| 5. The Student and Advisor actors select the future courses, term, day and time. (Repeat as many times as necessary.) **A2** |  |
| 6. The Actor selects to save the information. **A3** |  |
|  | 7. The system validates the planned coursework entered by the Actor. **{Validate Planned Courses}** |
|  | 8. The system updates the students planned coursework in the database and informs the actor that the information was updated successfully.  The use case ends. |
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| **Alternative Paths:**  **(luồng phụ)** | **A1.** | |
| **Actor Action** | **System Response** |
| 1. The Advisor actor enters the student’s [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) for the appropriate student. |  |
|  | 2. The system validates that the [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). **E2** |
| 3. The Advisor actor selects to maintain planned coursework. |  |
|  | Return to step 4 of the Basic Course of Events. |
| **A2.** An actor has the ability to review catalog information for a particular course when selected. | |
| **A3.**  1. The actor has the ability to “Cancel” changes to return the information to the previously saved version. Returns to step 8 of Basic Course of Events.  2. The actor has the ability to “Reset” information which removes all planned coursework for a student. Returns to step 8 of Basic Course of Events. | |
| **Exception Paths:** | **E1.** At **{Validate Planned Courses}** if errors ([*prerequisites*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) not met, more than six [*courses*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) selected for a term, planning a [*course*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) that the [*student*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) has already passed), the system indicates the courses where there are errors.  Returns to Basic Flow Step 5.  **E2.**  If the system cannot find the [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) in stored data, the system informs the user that their [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) cannot be found and the actor is returned to step 1 of Alternate Path 1 (A1). | |
| **Extension Points:** | **Validate Planned Courses**  Review of the planned [*courses*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) compares against courses the student has already taken, currently registered for or future planned courses to verify that the [*student*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc)has met the necessary [*prerequisites*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) or the [*prerequisite*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) is planned. (See Business Rule 2.1) **E1** | |
| **Triggers:** | Actor wishes to input [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) for future semesters. | |
| **Assumptions:** | The Advisor will not make any changes without first consulting the Student. | |
| **Preconditions:** | None. | |
| **Post Conditions:** | The updated [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) are saved to stored data. | |
| **Reference: Business Rules** | 2.1, 2.7, 2.8, 2.9 2.10 | |
| **Author(s):** | XXXXX | |
| **Date:** | 11-14-07 | |
| **Activity Diagram:** Next Page  A diagram of a company  Description automatically generated | | |
| **Sequence Diagram:** | | |
| **Interface:** | | |
| **Tóm tắt chức năng: UC1** | .Boundary:NhapMaSV  -NhapDuLieu():  -ThongBao():  .Boundary: DKHP  -HienThiHP():  -DangKyHP():  -ChonHP():  -XemChiTiet():  -ChiTietHP():  -Cancel():  -Reset():  -Save():  -ThongBao():  .Control: DKHP  -LayMaSV():  -LayMaHP():  -Cancel():  -Reset():  -Save():  .CSDL:  -ExecuteQuerry(): | |
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| Không có mô tả. | | |
| **Use Case Number:** | UC2 | |
| **Use Case Name:** | Generate Course Offerings | |
| **Actor (s):** | [*Advisor*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc), [*Administration Representative*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) | |
| **Maturity:** | Focused | |
| **Summary:** | Administration will generate a[*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) for a future semester based off of [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). | |
| **HBasic Course of Events:** | **Actor Action** | **System Response** |
| 1. Perform **{Login Authentication}** |  |
|  | 2. System displays welcome page with main features for actor to choose from. |
| 3. The Advisor or Administration Representative actor selects to generate a [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). |  |
|  | 4. The system requests the [*semester*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc)and year for which the [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) will be generated. |
| 5. The actor inputs the [*semester*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) and yearfor which the [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) will be generated. |  |
|  | 6. The system validates the entered [*semester*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) and year.  **E1.** |
|  | 7. The system calculates the [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) for the selected [*semester*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) based on [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc).  The calculation assigns weights to: number of [*students*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) who have planned a [*course*,](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) the seniority of the [*student*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc), differentiation between [*major requirements*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) versus [*elective requirements*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc), and whether the *course* is used in multiple tracks. |
|  | 8. Based on the calculations and the [*students’*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) day and time preferences, the system displays this [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) along with its [*course information*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). |
|  | 9. The system generates the [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) statistics for the parameters selected by the actor. It will include: [*course information*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc), subtotals of time and day, and totals. |
| 10. The actor views the generated [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). The use case end here.  **A1** |  |
| **Alternative Paths:** | **A1.** From this point the actor can select to print the generated [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). After that is completed the actor is returned to the same point in the flow of events. | |
| **Exception Paths:** | .**E1.** If the actor enters a [*semester*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) that has already occurred, the system prompts the user and requests another [*semester*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). Control returns to step 5 of the Basic Course of Events. | |
| **Extension Points:** | None | |
| **Triggers:** | Actor wishes to generate a [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). | |
| **Assumptions:** | [*Student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) have been entered into the system. | |
| **Preconditions:** | The actor possesses the correct authority level. | |
| **Post Conditions:** | A [*course offering*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) will be generated. | |
| **Reference: Business Rules:** | 2.3, 2.4, 2.5, 2.6, 2.7, 2.10 | |
| **Author(s):** | XXXXX | |
| **Date:** | 11-14-07 | |
| **Activity Diagram:**  A screenshot of a cell phone  Description automatically generated | | |
| **Sequence Diagram:** | | |
| **Interface:**  Không có mô tả. | | |

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| **Tóm tắt chức năng: UC2** | .Boundary: gợi ý học phần  -ThongBao():  -NhapDuLieu():  -TaoGoiYHocPhan():  -XuatBaoCaoKhoaHocGoiY():  Control:  -KiemTraDuLieu():  -TinhToanSoLieu():  -ThongKeSoLieu():  -InBieuMau():  .CSDL:  -ExecuteQuerry(): |
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| Không có mô tả. | | |
| **Use Case Number:** | UC3 | |
| **Use Case Name:** | Generate Statistics Report | |
| **Actor (s):** | [*Advisor*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc)*,* [*Administration Representative*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) | |
| **Maturity:** | Focused | |
| **Summary:** | [*Advisors*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) or an [*Administration Representative*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) will generate a Statistics Reportbased on [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). | |
| **Basic Course of Events:** | **Actor Action** | **System Response** |
| 1. Perform **{Login Authentication}**. |  |
|  | 2. System displays welcome page with main features for actor to choose from. |
| 3. The Advisor or Administration Representative actor selects to generate Statistics Report. |  |
|  | 4. The system directs them to enter parameters. Parameters are: Semester, Year, Time and/or Day. |
| 5. The user enters the parameters. |  |
|  | 6. The system generates the [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) statistics based on information stored in the database for the parameters selected by the actor. It will include: [*course information*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc), subtotals of time, day or both, and totals. |
| 7. The actor views the administrative report*.* The use case ends here.  **A1** |  |
| **Alternative Paths:** | **A1.** From this point the actor can select to print the generated Statistics Report. The use case ends here. | |
| **Exception Paths:** | None | |
| **Extension Points:** | None | |
| **Triggers:** | The actor wishes to generate Statistics Report. | |
| **Assumptions:** | [*Student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) have been entered into the system. | |
| **Preconditions:** | None | |
| **Post Conditions:** | A Statistics Report will be generated. | |
| **Reference: Business Rules** | None | |
| **Author(s):** | XXXXXX | |
| **Date:** | 11-14-07 | |
| **Activity Diagram:**  A screenshot of a chat  Description automatically generated | | |
| **Sequence Diagram:** | | |
| **Interface:**  Không có mô tả. | | |

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| **Tóm tắt chức năng: UC3** | .Boundary: Tạo báo cáo thống kê  -NhapDuLieu():  -ThongBao():  -XuatBaoCaoThongKe():  .Control:  -TaoBaoCaoThongKe():  -TinhToanThongKe():  -InBieuMau():  .CSDL:  -ExecuteQuerry(): |
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| Không có mô tả. | | | |
| **Use Case Number:** | UC4 | | |
| **Use Case Name:** | Generate Student Report | | |
| **Actor (s):** | [*Student*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc)*,* [*Advisor*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) | | |
| **Maturity:** | Focused | | |
| **Summary:** | Actors will be able to generate a report summarizing student[*course*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc)history and future [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). | | |
| **Basic Course of Events:** | **Actor Action** | | **System Response** |
| 1. Perform **{Login Authentication}** | |  |
|  | | 2. System displays welcome page with main features for actor to choose from. |
| 3. The actor selects to generate the student report consisting of specific student information and the student’s course preferences.  **A1.** | |  |
|  | | 4. The system displays a summary of the [*student information*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) and future [*student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc)*.* |
| 5. The use case ends at this point.  **A2** | |  |
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| **Alternative Paths:** | **A1.** Check if an advisor | | |
|  | **Actor Action** | **System Response** | |
|  | 1. The Advisor actor enters the student’s [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) for the appropriate student. |  | |
|  |  | 2. The system validates that the [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). **E1** | |
|  | 3. The Advisor actor selects to generate the student report consisting of specific student information and the student’s course preferences. |  | |
|  |  | Return to step 4 of the Basic Course of Events. | |
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|  | **A2.**  The actor can print the summary report. The use case ends at this point. | | |
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| **Exception Paths:** | **E1.**  If the system cannot find the [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) in stored data, the system informs the user that their [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) cannot be found and the actor is returned to step 1 of Alternate Path 1 (A1). | | |
| **Extension Points:** | None | | |
| **Triggers:** | The actor wishes to generate student report. | | |
| **Assumptions:** | [*Student preferences*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) have been entered into the system. | | |
| **Preconditions:** | None | | |
| **Post Conditions:** | A student report may be generated. | | |
| **Reference: Business Rules:** | None | | |
| **Reference: Risks** | None | | |
| **Author(s):** | XXXXXX | | |
| **Date:** | 11-14-07 | | |
| **Activity Diagram:**  A screenshot of a computer screen  Description automatically generated  ` | | | |
| **Sequence Diagram:** | | | |
| **Interface:**  Không có mô tả.  Trần Hảo Điền  Trần Hảo Điền | | | |

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| **Tóm tắt chức năng: UC4** | .Boundary: Tạo báo cáo sinh viên  -NhapMaSV():  -ThongBao():  .Control:  -KiemTraMaSV():  -TaoBaoCaoSinhVien():  -InBieuMau():  .CSDL:  -ExecuteQuerry(): |
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| **Use Case Number:** | UC5 | |
| **Use Case Name:** | Login Authentication | |
| **Actor (s):** | [*Student*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc)*,* [*Advisor*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc), [*Administration Representative*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) | |
| **Maturity:** | Focused | |
| **Summary:** | All actors will log in to Course Cast. Features are available to the actor according to [*User Type*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) i.e. [*Student*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc)*,* [*Advisor*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc), [*Administration Representative*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc)*.* | |
| **Basic Course of Events:** | **Actor Action** | **System Response** |
| 1. The actor types their [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) and their [*Password*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). |  |
|  | 2. The system will retrieve the actor’s name and [*User Type*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) from the database for the supplied [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) and [*Password*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) thus beginning a [*Session*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc).  **E1** |
|  | 3.  [*Students*](file:///D:\Download\Zalo%20Received%20Files\DomainModel.doc) have access to:  Student Information  Course Planning  Log Off **A1,A2** |
|  | 4. The system redirects the actor to theHome page. |
| **Alternative Paths:** | A1. If the usertype is an Advisor. The system show: Student information, Course planning, Course offering, Statistics, Log Off | |
|  | A2. If the usertype is an Administraction: The system show: Course offering, Statistics, Log Off. | |
| **Exception Paths:** | **E1.** If the system cannot find the [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) in the database, the system informs the user that their [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) cannot be found and the actor is returned to the beginning of the course of events. As in other UNF systems, there is no limit to the number of times a user may attempt to log in to Course Cast.  If the system finds the [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) in the database but the actor supplied [*Password*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) does not match the [*Password*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) in the database for the [*UNFID*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc), the system informs the user that their [*Password*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) is incorrect and the actor is returned to the beginning of the course of events. As in other UNF systems, there is no limit to the number of times a user may attempt to log in to Course Cast. | |
| **Extension Points:** | None | |
| **Triggers:** | The actor is visiting the website but has not yet begun a [*Session*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc).  The actor’s [*Session*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) has timed out as a result of inactivity.  The actor has ended a [*Session*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc) by selecting Log Off. | |
| **Assumptions:** | None | |
| **Preconditions:** | The actor is visiting Course Cast but does not have an active [*Session*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc). Therefore the actor has been redirected to the Log On page. | |
| **Post Conditions:** | The actor has an active [*Session*](file:///D:\Download\Zalo%20Received%20Files\Glossary.doc).  The actor is visiting the Home page.  The actor has the appropriate features available. | |
| **Reference: Business Rules** | 2.7, 2.8, 2.9, 2.10 | |
| **Author(s):** | XXXXXX | |
| **Date:** | 11-14-07 | |
| **Activity Diagram:**  A diagram of a process  Description automatically generated | | |
| **Sequence Diagram:** | | |
| **Interface:**  Không có mô tả. | | |

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| **ClassDiagram Tổng Quát** | | | | | | | | | | |  |
|  |  | UC1 | UC2 | UC3 | UC4 | UC5 | Tổng | Trùng | Kết luận |
| frm\_DKHP | +DangKyHP() : void  +HienThiHocPhan()  +ChonHocPhan()  +XemChiTiet(string MaHP) : void  +ChiTietHP() : void  +Save() : void  +Cancel() : void  +Click\_Reset() : void  +ThongBaoLoi() : void | 9 |  |  |  |  | 9 | 0 | 9 |
| frm\_nhapMSV | +nhapMSV() : void  +ThongBaoLoi() : void | 2 |  |  | 2 |  | 4 | 2 | 2 |
| frm\_MoHP | +MoHP()  +NhapHKvaNH() : void  +In() : void  +HienThiHP() : void  +XemChiTiet() : void |  | 5 |  |  |  | 5 | 0 | 5 |
| frm\_ThongKe | +BaoCaoThongKe() : void  +nhapThongTin() : void  +HienThiBaoCao() : void  +XemChiTiet() : void  +In() : void |  |  | 5 |  |  | 5 | 0 | 5 |
| frm\_BaoCaoSinhVien | +BaoCaoSinhVien() : void  +HienThiBaoCao() : void  +XemChiTiet() : void  +In() |  |  |  | 4 |  | 4 | 0 | 4 |
| TrangChu | +MoTrangChu() : void  +getController() : ctrl\_DangNhap  +setController(controller : ctrl\_DangNhap) : void |  |  |  |  | 3 | 3 | 0 | 3 |
| frm\_DangNhap | +LayThongTinDangNhap() : void  +ThongBaoLoi() : void |  |  |  |  | 2 | 2 | 0 | 2 |
| ctrl\_DKHP | +getSV(mssv : string) : void  +Cancel()  +Reset()  +getHP(maHP : string) : void  +Save() | 5 |  |  |  |  | 5 | 0 | 5 |
| ctrl\_MoHP | +LayDSHP(NamHoc : int, HocKy : int) : void  +ThongKe() : void |  | 2 |  |  |  | 2 | 0 | 2 |
| ctrl\_ThongKe | +LayThongTin(NamHoc : int, HocKy : int) : void  +ThongKe() : void |  |  | 2 |  |  | 2 | 0 | 2 |
| ctrl\_BaoCaoSinhVien | +getSV(mssv : string) : void |  |  |  | 1 |  | 1 | 0 | 1 |
| ctrl\_DangNhap | +KiemTraTaiKhoan(MaSo : string, Password : str...  +CapNhatChucNang() : void |  |  |  |  | 2 | 2 | 0 | 2 |
| Database | +executeQuery(sql : string) : DataTable | 1 | 1 | 1 | 1 | 1 | 5 | 4 | 1 |