

Connectify Concert

Software Requirements Specification

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Table of Contents

<u>Description</u>	<u>Page No.</u>
1.0 Introduction	4
1.1 Purpose	4
1.2 Scope	4
1.3 References	5
1.4 Technologies to be Used	5
1.5 Overview	5
2.0 Overall Description	6
2.1 Product Perspective	7
2.2 Software's Interface	8
2.3 Hardware Interface	8
2.4 Product Function	8
2.5 User Characteristics	8
2.6 Constraints	9
3.0 Use Case Description	10
3.1 Use Case Diagram	11
3.2 Use Case Description	12
3.2.1 Login	13
3.2.2 Personal Dashboard	13
3.2.3 Forgot Password	14
3.2.4 Team Member Info	14
3.2.5 Account Settings	15
3.2.6 Change Username	15
3.2.7 Change Password	16
3.2.8 Get Team/Project progress	16
3.2.9 Get Status	17
3.2.10 Team Status	17
3.2.11 Project Status	18
3.2.12 Update Project/Team Progress	18
3.2.13 Switch Repository	19
3.2.14 Multi Project Handle	19

3.2.15 Generate Report	20
3.2.16 Assign Activity	20
4.0 Sequence Diagrams:	21
4.0.1. Change username Sequence Diagram	21
4.0.2. Team member info Sequence Diagram	22
4.0.3. Personal Dashboard Sequence Diagram	23
4.0.4. Multi Project Handle Sequence Diagram	24
4.0.5. Generate Report Sequence Diagram	25
4.0.6. Repository Switching Sequence Diagram	26
4.0.7. Assign Activity Sequence Diagram	27
4.0.8. Get status Sequence Diagram	28
4.0.9. Global Delivery Project Sequence Diagram	29
4.0.10. Login Sequence Diagram	30
4.0.11. Update project status Sequence Diagram	31
4.0.12. Change password Sequence Diagrams	32
5.0 Class Diagram	33
6.0 Implementation of MVC architecture	34
7.0 Component Diagram	35
8.0 Detailed Design with MVC	36

1.0 Introduction

Smart phones have become a part of every one's life. They are used for almost every activity. They help in keeping the work organized and have information at user's fingertips, help in faster communication. According to a survey, there is a 500% growth of android phones in India in 2012. Using a smartphone for sharing project information helps the team making their project faster.

1.1 Purpose

Developing an industry standard software requires a team of skilled developers. To make this software faster and robust, communication between the developers, manager and other stake holders is crucial. This is very difficult if there is a large team developers. Project manager may have to call each developer and stake holder to get the status of the project.

Using a mobile app for communication is efficient, fast and easy to use. Project status can be known instantly. Developers will be in sync about the progress of the project making it easier and faster to develop the software. Developers can also share repositories, help each other if needed.

1.2 Scope: The Scope of this mobile app Connectify Concert includes:

- Providing a user friendly UI for users.
- Providing data encryption (SSL) for sharing the status, repositories.
- Providing Team status, Project status

- Providing Team member information, progress of team and project
- Providing ability to generate reports for the projects
- Providing a personal dashboard for every user and ability to handle multiple projects
- Providing an easy way to switch repositories and assigning activities
- Providing options to export the reports to .xslm .pdf or any other desired format.

1.3 References

- SRS Format provided by TGMC.
- Problem Definition provided by TGMC.

1.4 Technologies to be used:

- Android Standard Development Kit
- J2SE
- Eclipse IDE
- XML for User Interface (Layouts)
- iOS Standard development kit
- MySQL for database
- JSON for parsing information
- Google Cloud Messaging for notifications
- Objective C for iOS
- Android Debug Bridge (adb) for debugging
- XCode : IDE for iOS app development

1.5 Overview: The SRS will include two sections, namely:

- Overall Description: It describes the major role of the system components and their interconnections.
- Specific Requirements: It describes roles and functions of the various actors involved in the Use Cases

2.0 Overall Description:

The under-mentioned sections describe the general factors affecting the product and its requirements.

The connectify concert would provide an access to the IBM's rational team concert Tool from Android Mobile. This android application would be accessed and used by project developers, project managers and stake holders. This application will be designed to maintain and modify the status of a project, to get information about team members, to get team status and multi project handling. This application would provide remote access to the projects.

A user can be a team member (software developer), team manager, project manager or a stake holder. The team member will be able to know the current status of the project and team status. The project manager can also get the status of the project and information about the team members. Project manager would also be able to generate reports. Project Manager will also be updated for Global Delivery Projects managed in RTC.

Live Monitoring and tracking of project deliverables would be possible for the project manager and its members. This application consists of those processes performed to observe project Execution so that potential problems can be identified in a timely Manner and corrective action can be taken, when necessary, to Control the execution of the project. Quick allocation of the project to a certain team would be possible for team manager in spite of his availability.

Application enables the project team to organize their work to meet these constraints. Application improves growth and development within team. Application would help to keep the project on-track, on-time and within budget. Remote access to project, know status of project, team and Resource Utilization Access to personal and public dashboards.

Confidential data of a project would be provided with secure Access. SSL encryption would be provided to this type of data. Around the clock availability of the application. Better component design of the application to get better performance at peak time. Flexible service based architecture will be provided for future extension. An optional feature that is social networking sites would be integrated.

The application would contain an professional GUI and gives an professional look and feel. For android platform use of eclipse IDE with android SDK would be done and for IOS platform x-code would be used. Reports generated would be exportable in .XLS, .PDF or any other desirable format.

2.1 Product perspective:

This application has xml based user interface. This app runs on phone whose operating system is android and ios, which would interact with Rational Team Concert of IBM .The home screen of this app is credential screen where user (software professional of IBM) will have to supply his credentials. User will be notified if he supplies incorrect details .After successfully logging in user can view following options

- I) Project Status
- II) Team Status
- III) Team Members info
- IV) Progress of Team(s)
- V) Progress of Project(s)
- VI) Generate Report
- VII) View Report(s)
- VIII) Assign Activity
- IX) Access Personal Dashboard
- X) Multi Project Handle
- XI) Settings

Project Manager can easily assign activities to different teams. Teams can easily get updated about recently assigned activities .Can easily get progress updates and team updates immediately. Any user can generate report on his project status as well check recently generated by other team members. In settings users can change password. As well as various modes of operation depending on users preference. Different modes of operation are as follows

- Timely update(updates of content in different sections will occur in specified interval of time example :1min,3min,5min,10min,30min,1day>manual update.)
- As it appears (content in any section will get updated as soon as it is posted.)

Multi Project handle would be helpful for those employees who are working on multiple project .It basically accumulates all updates in various projects and organizes them based on project according to chronological order . Thus saving time and preventing confusion to user. User get information about team members and any changes in team members.

2.2 Software Interface:

- **Front End** : xml
- **Back End** : java and android sdk

2.3 Hardware Interface:

- Client Side: An android (or) iOS operating phone with minimum ram 128mb.

2.4 Product Function:

Connectify Concert has following functions

- User of this application would login with an xml based login screen
- Multi Project Handle
- Project Status
- Team Status
- Team Members info
- Progress of Team(s)
- Progress of Project(s)
- Generate Report
- View Report(s)
- Assign Activity

2.5 User Characteristics:

- Here the user is a software developer or a project manager or a stake holder.
- Software developer has his own id and password, has his own permissions to access the data but can't access all the data.

- Project manager has the ability to assign tasks and get instant updates
- Project manager can also change projects for developers

2.6 Constraints:

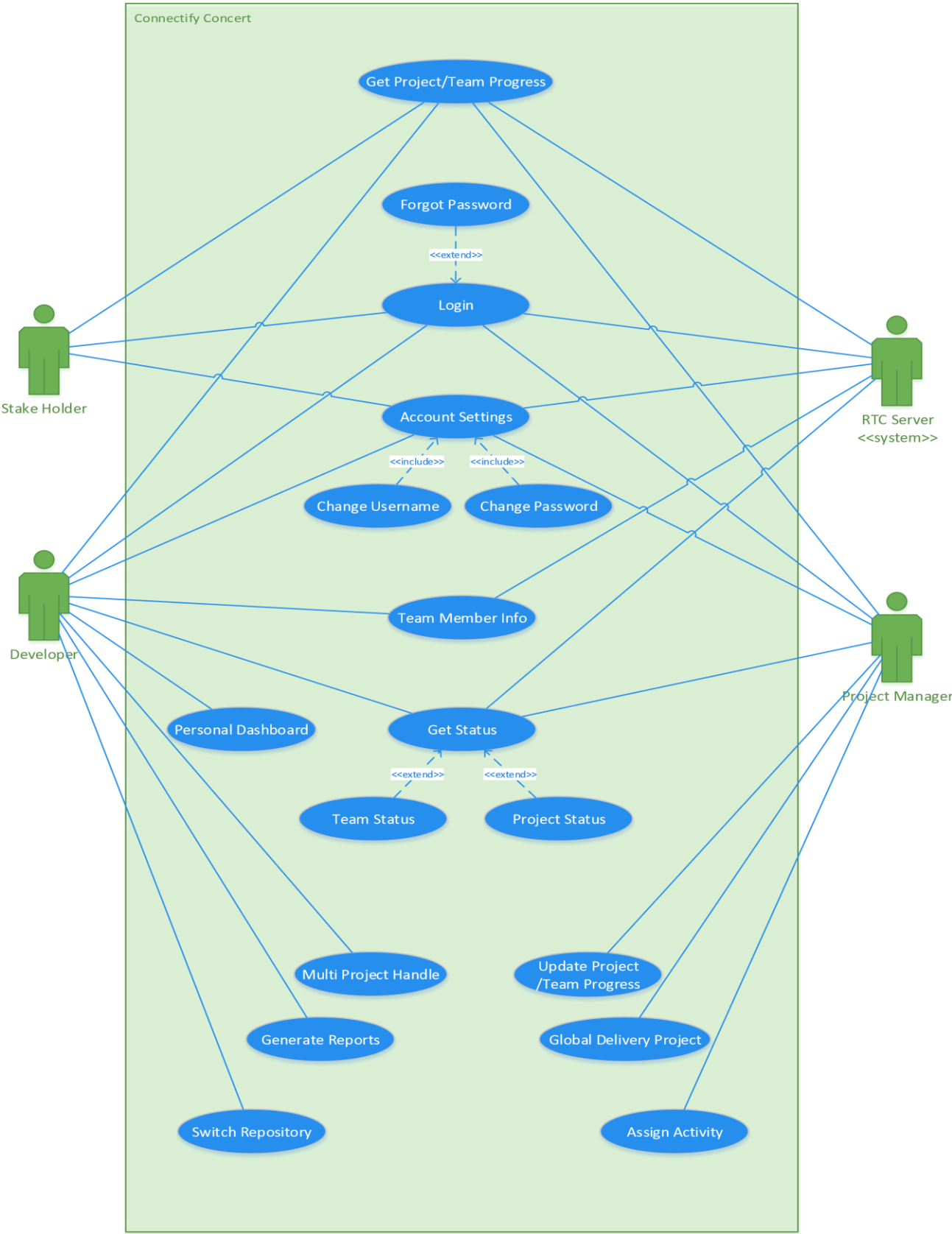
- GUI is in English only.
- An account cannot be shared among developers
- Should be compatible with the database used by IBM ration team concert.
- Data shared between the developers must be encrypted
- Developer cannot change his assigned activity/project.

3.0 Use Case Model Description

The following use-cases have been identified:

UC1	Login
UC2	Forgot Password
UC3	Team Member Info
UC4	Account Settings
UC5	Change Username
UC6	Change Password
UC7	Get Project/Team Progress
UC8	Get Status
UC9	Team Status
UC10	Project Status
UC11	Personal Dashboard
UC12	Update Project/Team Progress
UC13	Global Delivery Project
UC14	Multi Project Handle
UC15	Generate Reports
UC16	Switch Repository

3.1 Use Case Diagram:



3.2 Use Case Documentation

3.2.1 Login

Use Case Name	Login
Pre-Conditions	None
Participating Actor	Developer/Project Manager/Stake Holder
Flow Of Events	1) The User enters the Username and Password in the Login Form and Clicks Login Button on the form. If details are correct, the user is redirected to the personal dashboard else to the invalid login 2) Username and Password fields should not be empty. If it is so, an error is popped up. 3) If user forgets his password, then steps to reset the password will be displayed
Exit Condition	The user can access his personal dashboard

3.2.2 Personal Dashboard

Use Case Name	Personal Dashboard
Pre-Conditions	User has successfully logged in
Participating Actor	Developer/Project Manager
Flow Of Events	1) User has access to his personal dash board which shows his personal information, team information 2) Email field should not be empty. If it is so, an error is popped up. 3) Username and/or Email field is not correct. The user is transferred to an error page.
Exit Condition	User can go for team status or project status or team member info etc.

3.2.3 Forgot Password

Use Case Name	Forgot Password
Pre-Conditions	User knows his username but forgot his password
Participating Actor	Developer/Project Manager/Stake Holder
Flow Of Events	1) User enters his/her username & email and confirms by clicking on 'Reset Password'. If the entered details are correct, the user gets an email consisting of the new password. 2) Username field should not be empty. If it is so, an error is popped up. 3) Email field should not be empty. If it is so, an error is popped up.
Exit Conditions	Password is reset and user can login again

3.2.4 Team Member Info

Use Case Name	Team Member Info
Pre-Conditions	User has accessed the personal dash board and opted for team member info
Participating Actor	Developer/Project Manager
Flow Of Events	1)Team member information is shown to the user 2) If the user is not part of any team then a message will be shown conveying the same.
Exit Condition	After viewing the information, user is redirected to the personal dashboard.

3.2.5 Account Settings

Use Case Name	Account Settings
Pre-Conditions	User has accessed the personal dash board and opted for Account Settings
Participating Actor	Developer/Project Manager/Stake holder
Flow Of Events	1) User will be asked to enter his current password 2) User will be given options to change username and password
Exit Condition	After entering password, user may opt to change username or password

3.2.6 Change Username

Use Case Name	Change Username
Pre-Conditions	User has chosen Account Settings and then tapped on Change Username
Participating Actor	Developer/Project Manager/Stake holder
Flow Of Events	1) User enters his current username and new username 2) If any field is left empty, error will be popped 3) If the current username or password are incorrect then the new details are not updated and error will pop up 4) If the current and new username are same then error will pop up
Exit Condition	After updating the username, user is redirected to the Account Settings.

3.2.7 Change Password

Use Case Name	Change Password
Pre-Conditions	User has chosen Account Settings and then tapped on Change Password
Participating Actor	Developer/Project Manager/Stake holder
Flow Of Events	1) User enters his current password and new password 2) If any field is left empty, error will be popped 3) If the current username or password are incorrect then the new details are not updated and error will pop up 4) If the current and new password are same then error will pop up
Exit Condition	After updating the password, user is redirected to the Account Settings.

3.2.8 Get Team/Project progress

Use Case Name	Get Team/Project progress
Pre-Conditions	User has accessed the personal dash board and opted for Get Team/Project progress
Participating Actor	Developer/Project Manager/Stake Holder
Flow Of Events	1)Team Progress and project progress are displayed to the user 2) If the user is a developer and is not part of any project or team, a message will be displayed.
Exit Condition	After viewing the information, user is redirected to the personal dashboard.

3.2.9 Get Status

Use Case Name	Get Status
Pre-Conditions	User has accessed the personal dash board and opted for Get Status
Participating Actor	Developer/Project Manager
Flow Of Events	1)User will choose between project status and team status 2) If the user is a developer and is not part of any project or team, an error message will be displayed.
Exit Condition	After viewing the information, user is redirected to either team status or project status

3.2.10 Team Status

Use Case Name	Team Status
Pre-Conditions	User has tapped on Get Status and chose Team Status
Participating Actor	Developer/Project Manager/Stake holder
Flow Of Events	1)Team status will be displayed to the user 2) If the user is a developer and is not part of any project or team, an error message will be displayed.
Exit Condition	After viewing the information, user is redirected to Get Status

3.2.11 Project Status

Use Case Name	Project Status
Pre-Conditions	User has tapped on Get Status and chose Project Status
Participating Actor	Developer/Project Manager/Stake Holder
Flow Of Events	1)Project status will be displayed to the user 2) If the user is a developer and is not part of any project or team, an error message will be displayed.
Exit Condition	After viewing the information, user is redirected to Get Status

3.2.12 Update Project/Team Progress

Use Case Name	Update Project/Team Progress
Pre-Conditions	User has accessed the personal dash board and tapped on Update Project/Team Progress
Participating Actor	Project Manager
Flow Of Events	1)Project progress details will be entered and updated 2) Team progress details will be entered and updated 3) If any field is left empty, error will be popped
Exit Condition	After updating the information, user is redirected to Personal Dash-board

3.2.13 Switch Repository

Use Case Name	Switch Repository
Pre-Conditions	User has accessed the personal dash board and tapped on Switch Repository
Participating Actor	Developer
Flow Of Events	1)User will enter the new location for the repository and it will be switched to new location 2) If the new location is not available, error will be generated 3) If location field is left empty, error will be popped
Exit Condition	After switching the repository, user is redirected to Personal Dashboard

3.2.14 Multi Project Handle

Use Case Name	Multi Project Handle
Pre-Conditions	Developer has accessed the personal dash board and opted for Multi Project Handle
Participating Actor	Developer
Flow Of Events	Developer will be displayed updates of different projects in which he is member.
Exit Condition	After viewing the information, user is redirected to the personal dashboard.

3.2.15 Generate Report

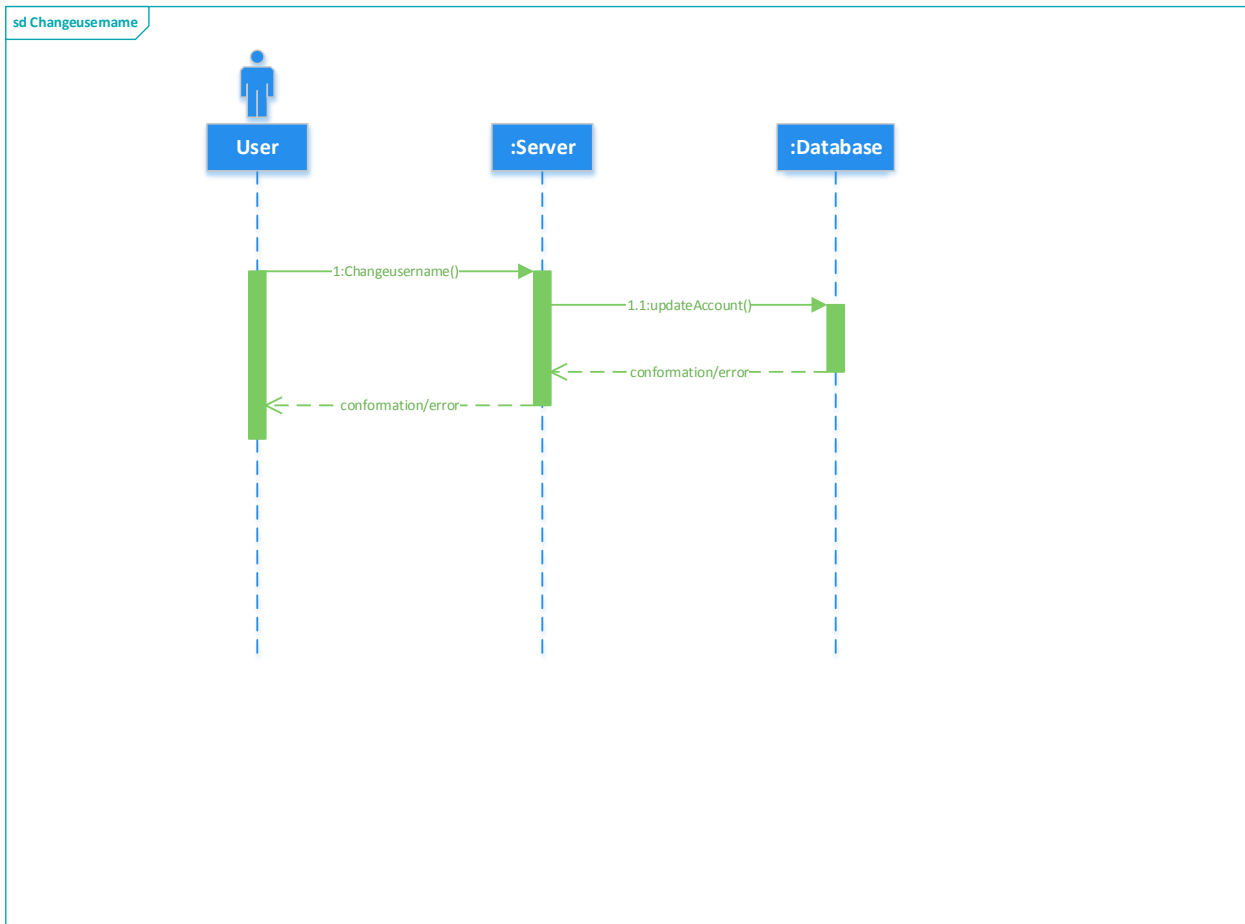
Use Case Name	Generate Report
Pre-Conditions	Developer has accessed the personal dash board and opted for Generate Report
Participating Actor	Developer
Flow Of Events	1) Series of Project names in which developer is member will be displayed and developer will choose for generating report of a particular project. 2) Report of that project will be generated.
Exit Condition	After generating report, developer is redirected to the personal dashboard.

3.2.16 Assign Activity

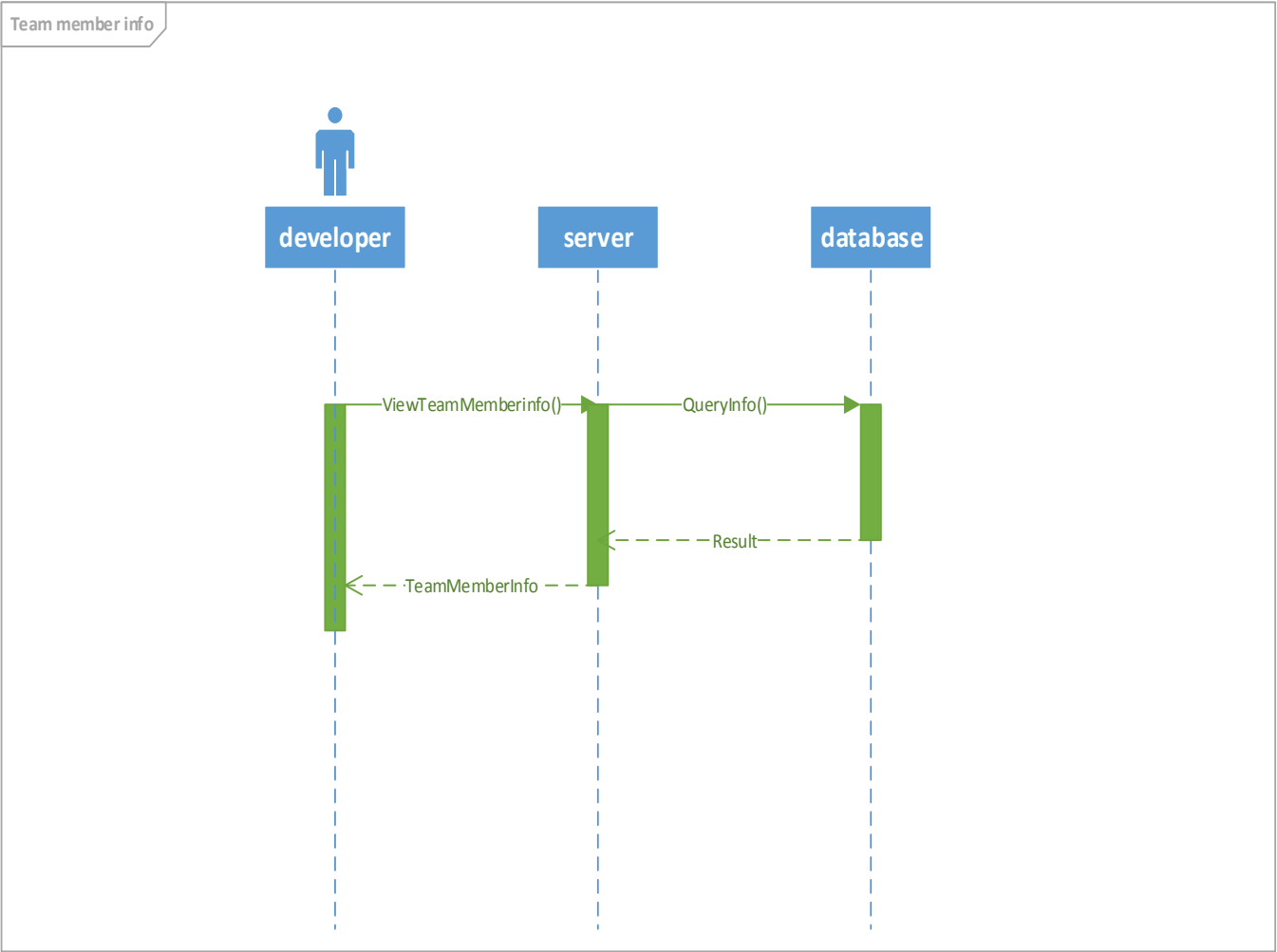
Use Case Name	Assign Activity
Pre-Conditions	Manager has accessed the personal dash board and opted for Assign Activity
Participating Actor	Project Manager.
Flow Of Events	1) Projects that are being managed by manager will be displayed out of which he chooses a Project and he selects team for which he wants to assign activity . 2) He will be notified about successful assignment of activity.
Exit Condition	After Assigning Activity, Project Manager is redirected to the personal dashboard .

4.0 Sequence Diagrams:

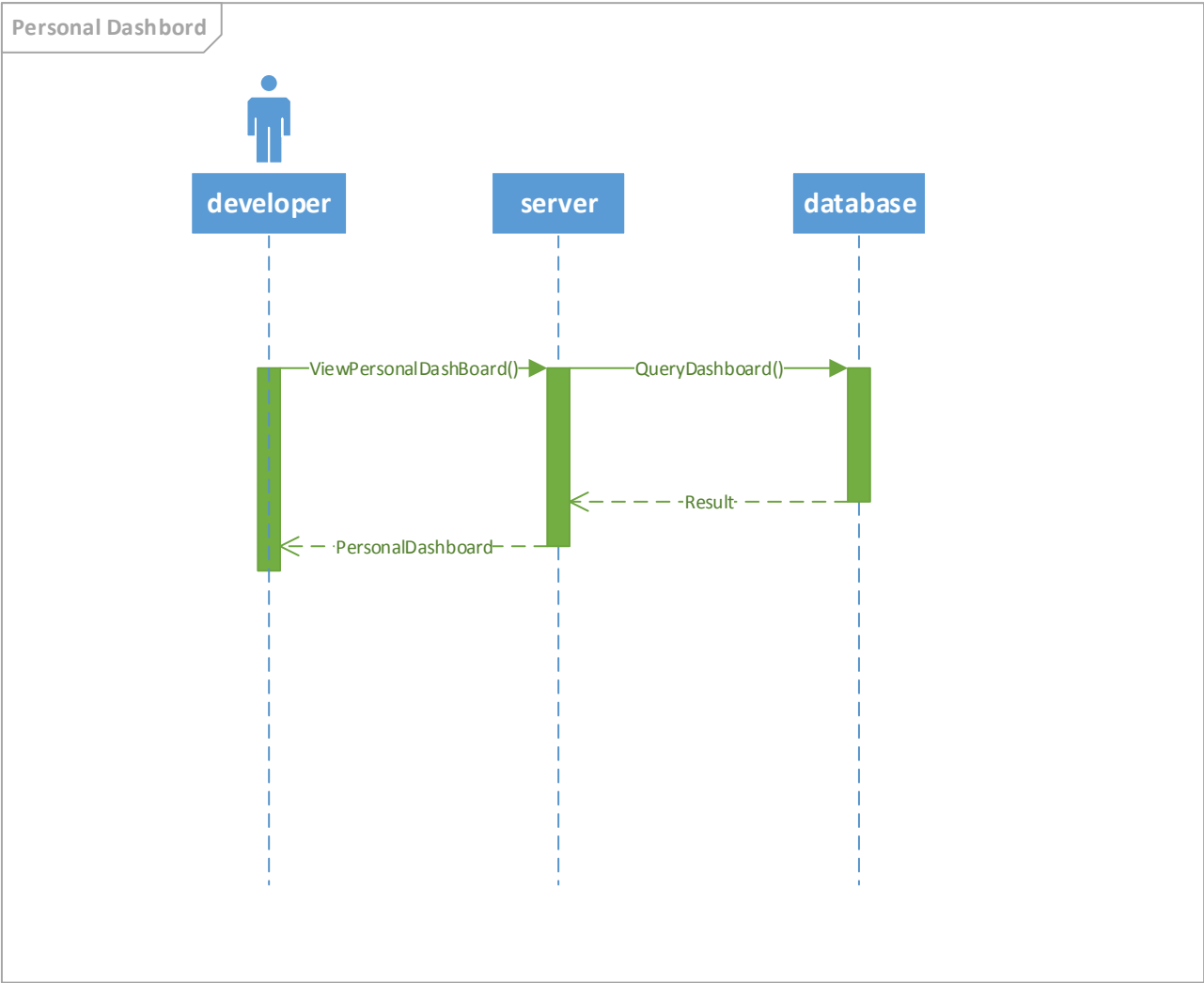
4.0.1. Change username Sequence Diagram



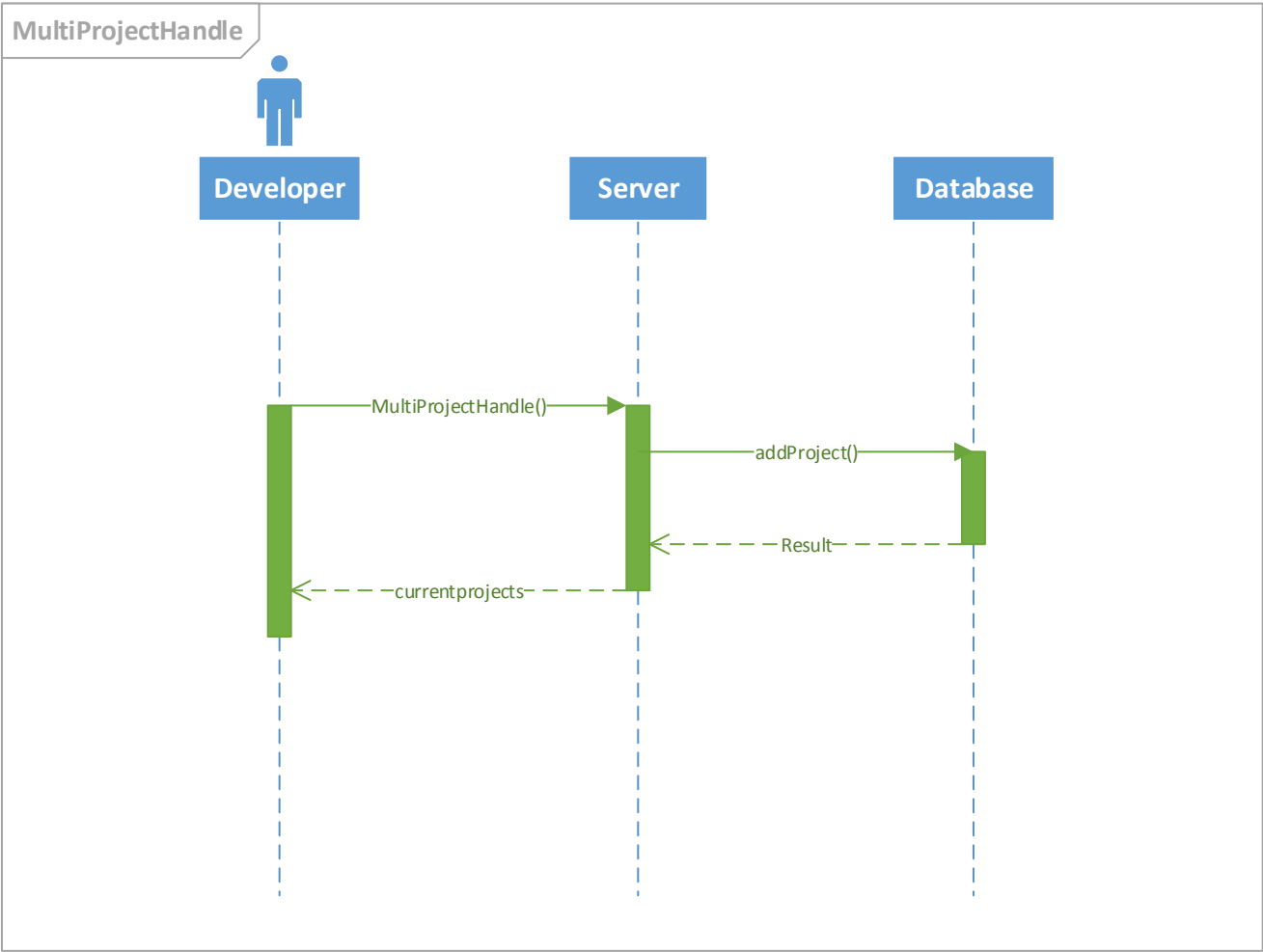
4.0.2. Team member info Sequence Diagram



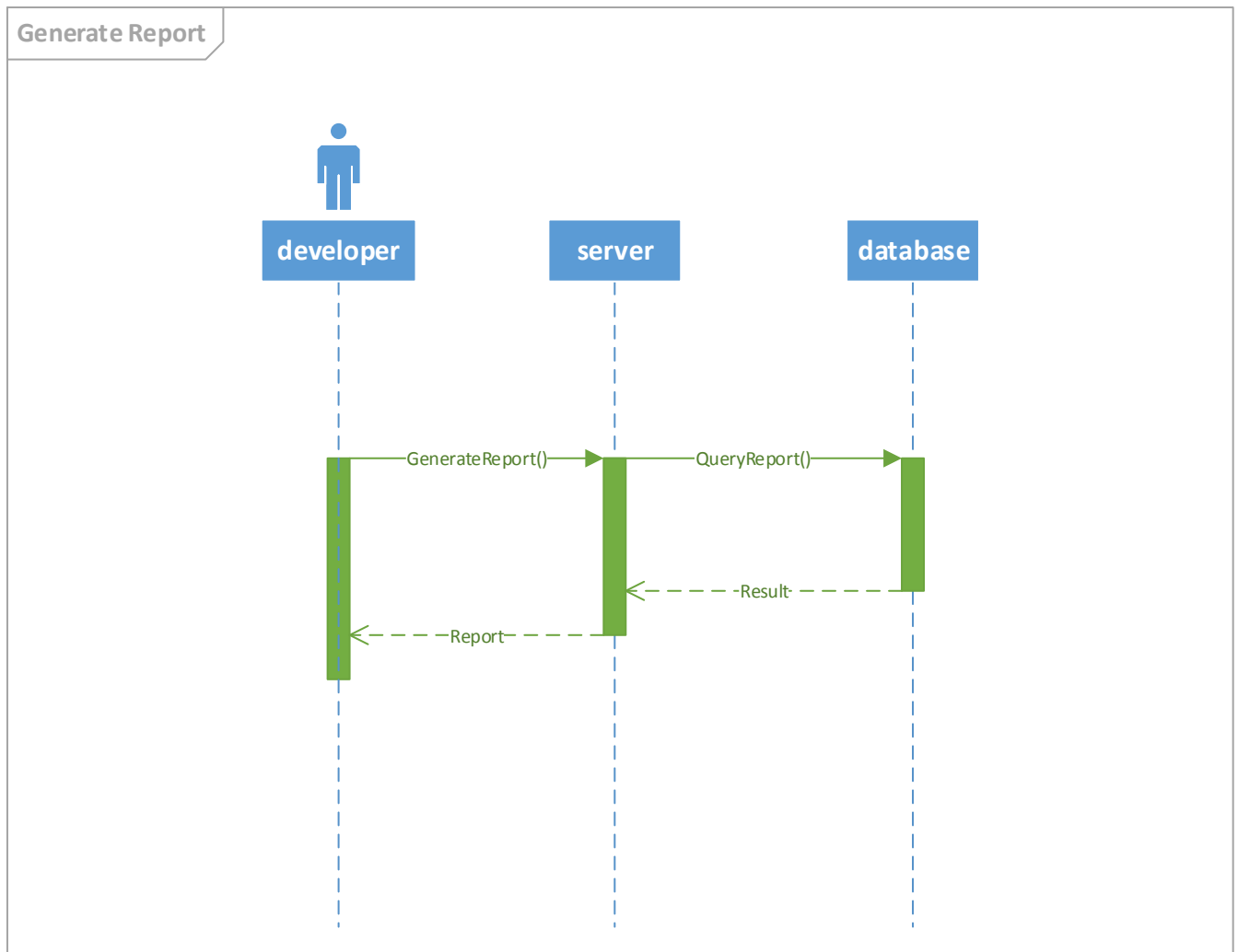
4.0.3. Personal Dashboard Sequence Diagram



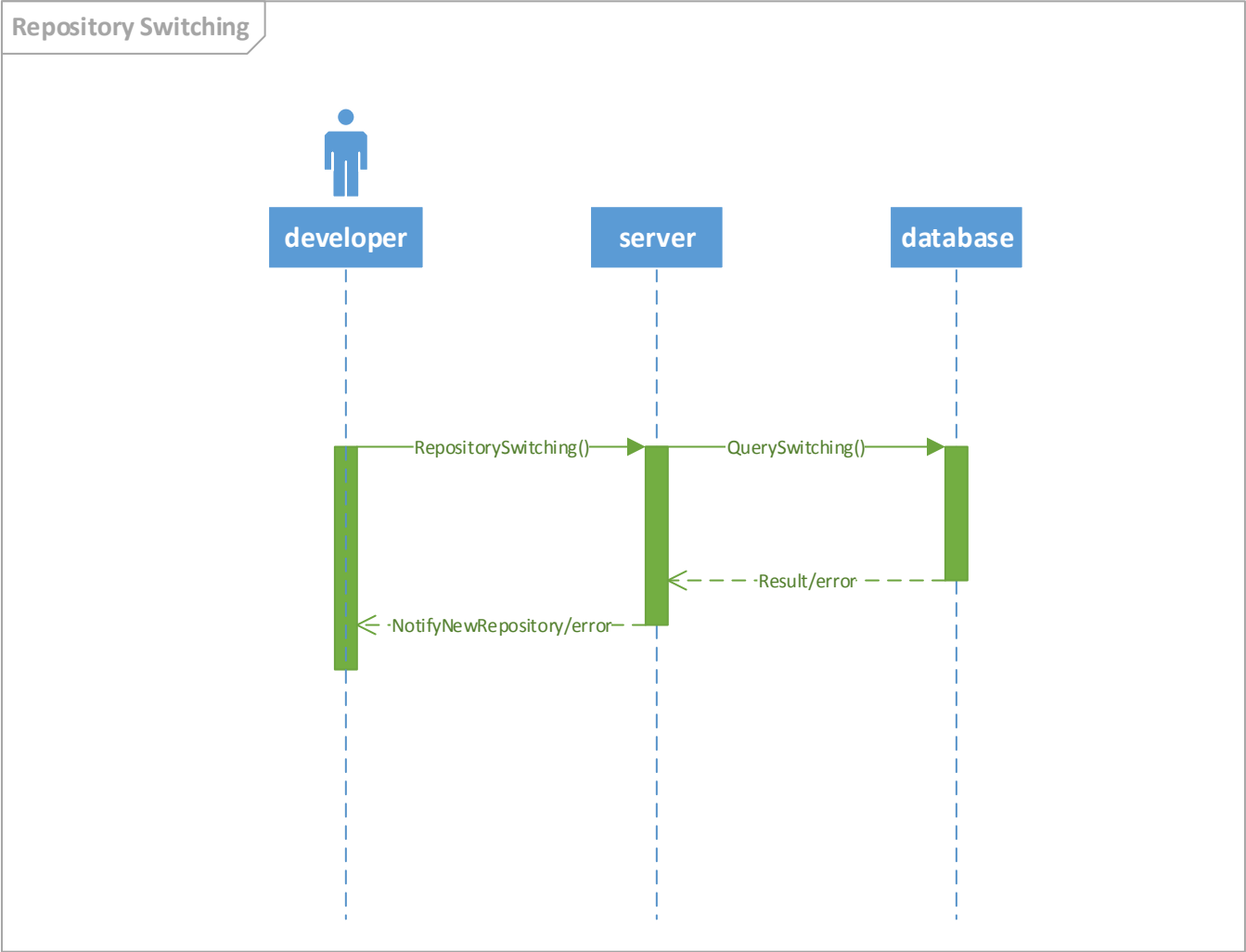
4.0.4. Multi Project Handle Sequence Diagram



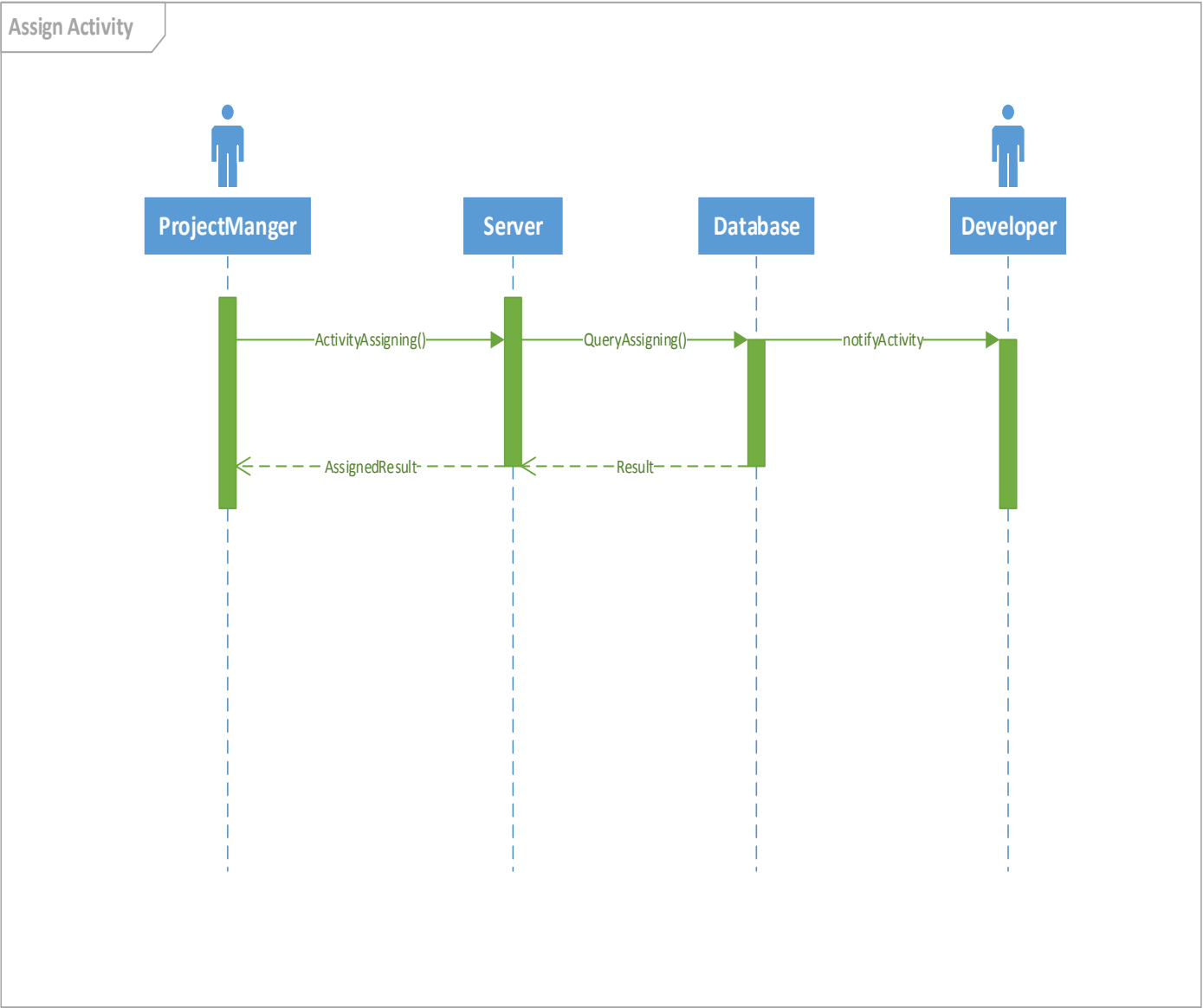
4.0.5. Generate Report Sequence Diagram



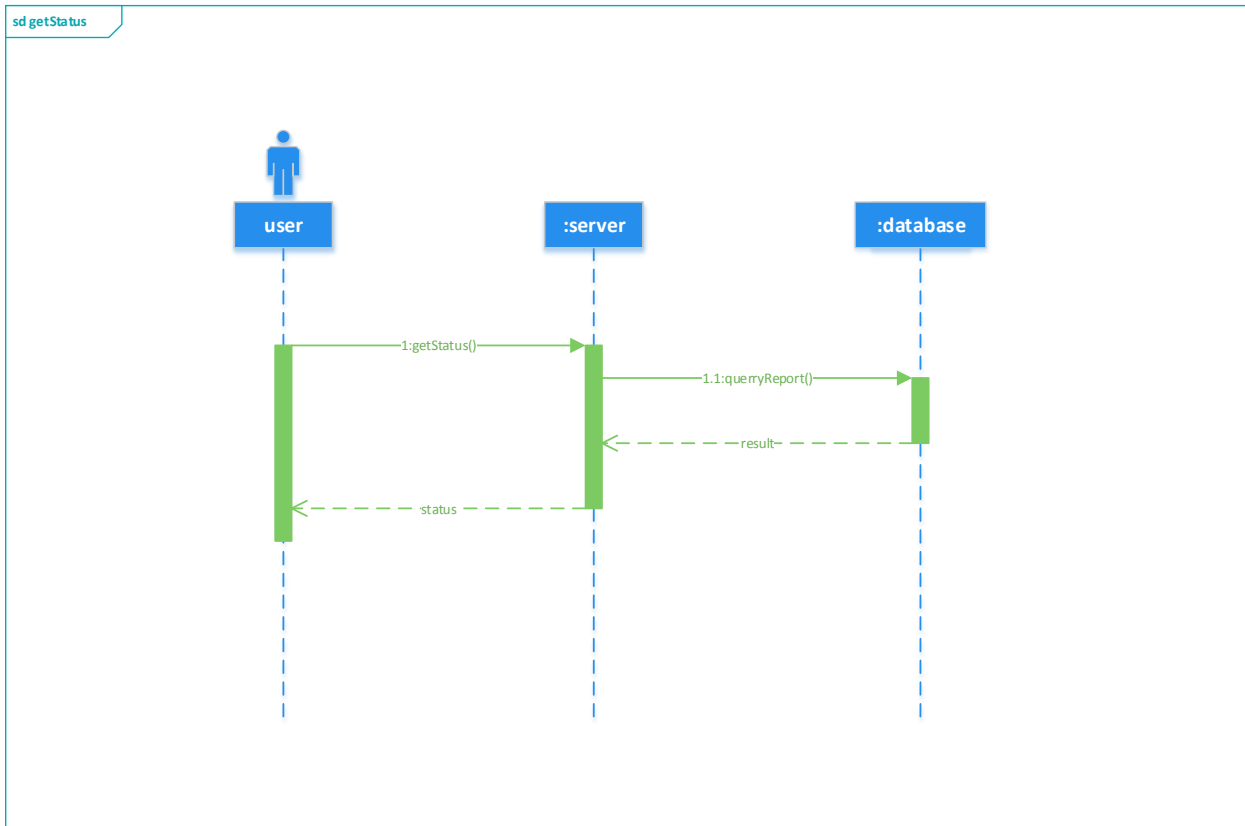
4.0.6. Repository Switching Sequence Diagram



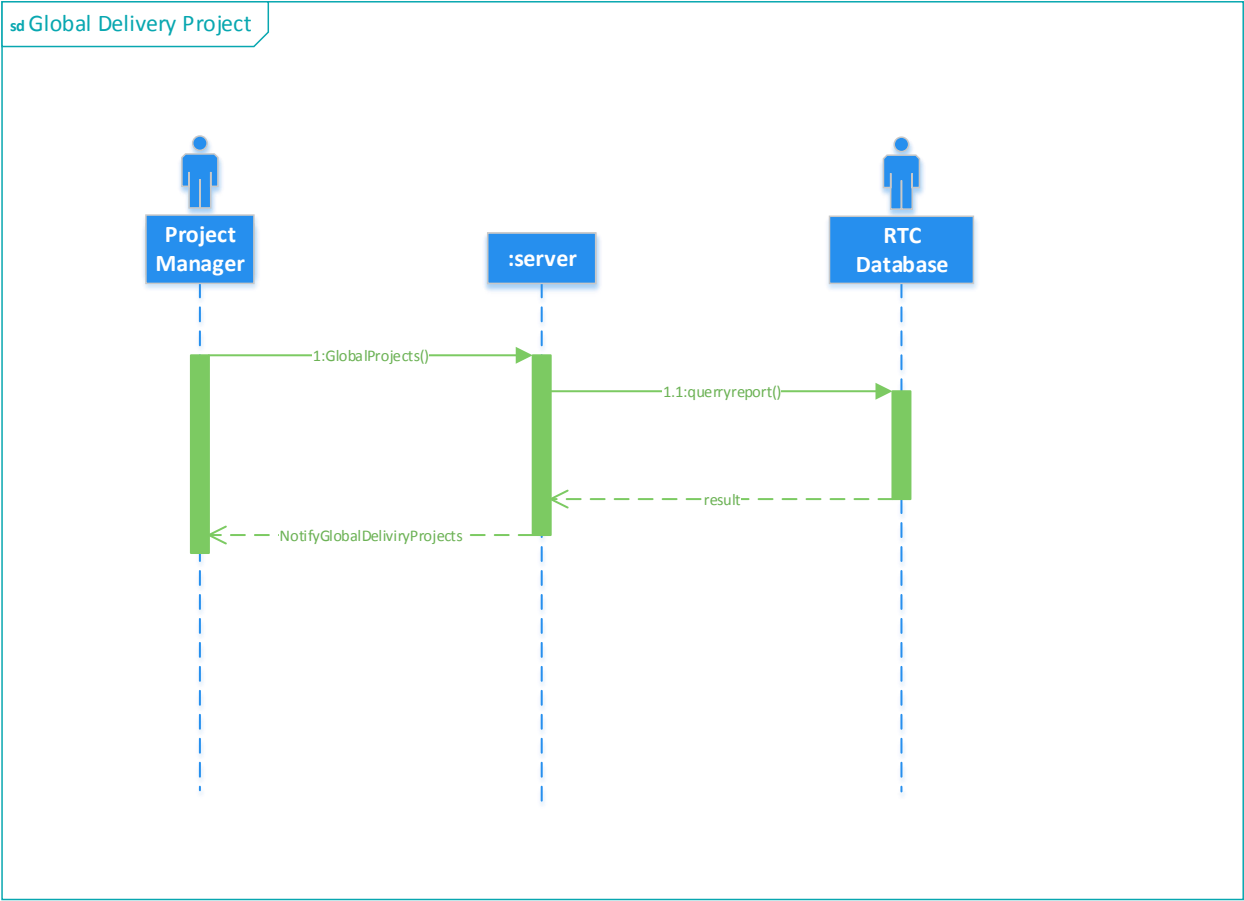
4.0.7. Assign Activity Sequence Diagram



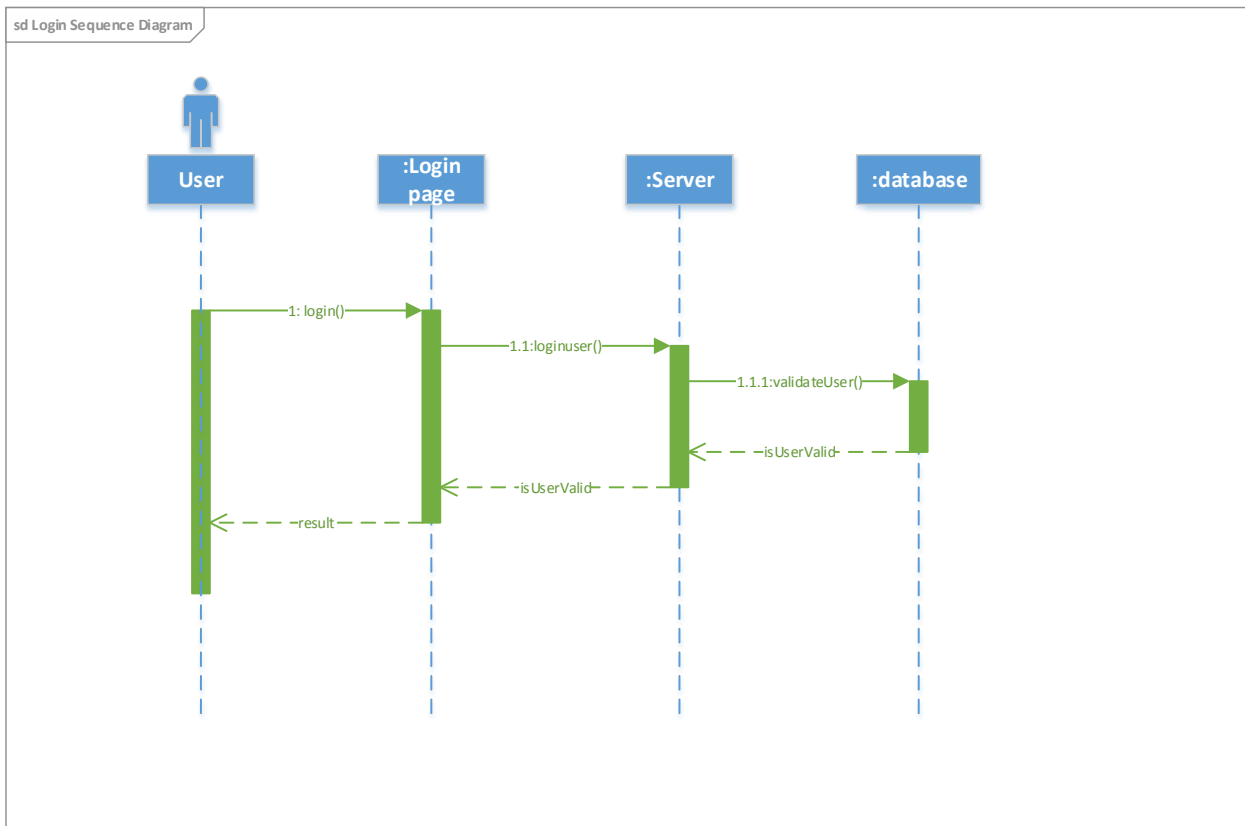
4.0.8. Get status Sequence Diagram



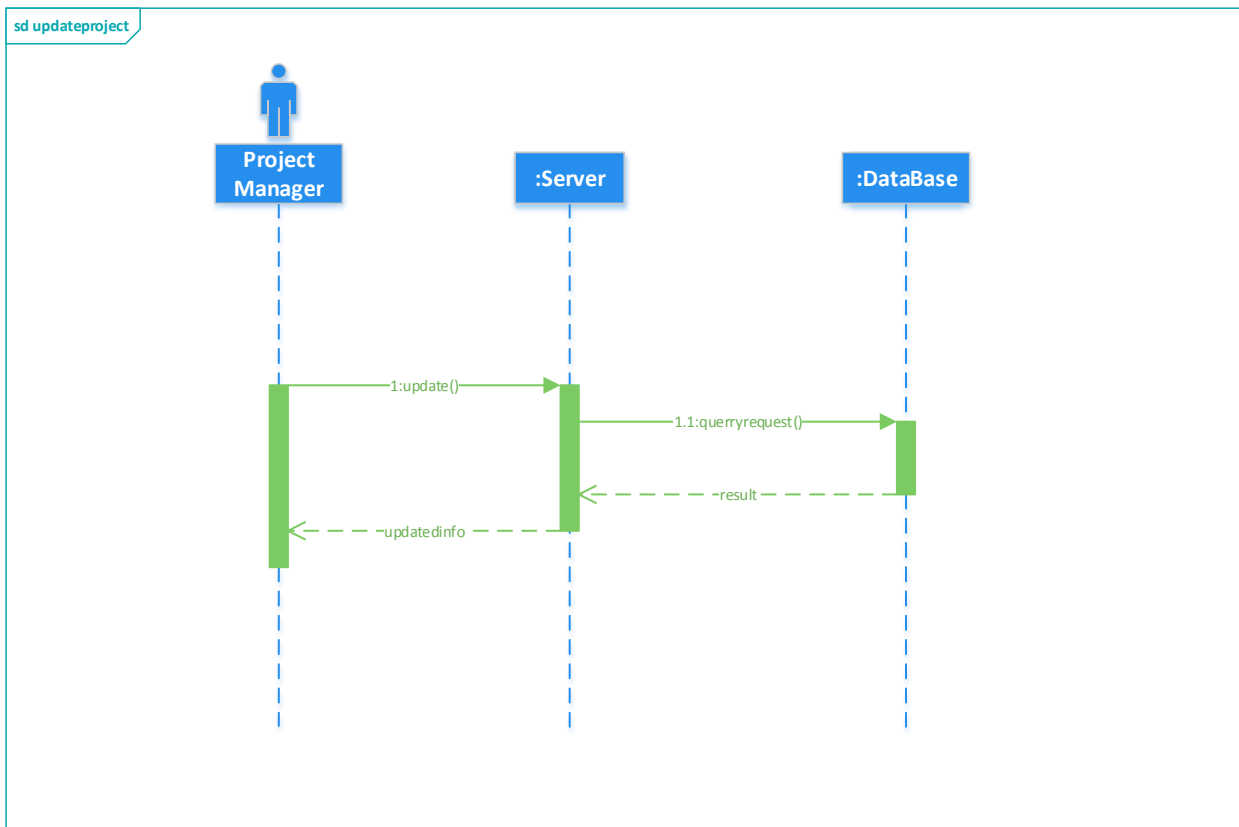
4.0.9. Global Delivery Project Sequence Diagram



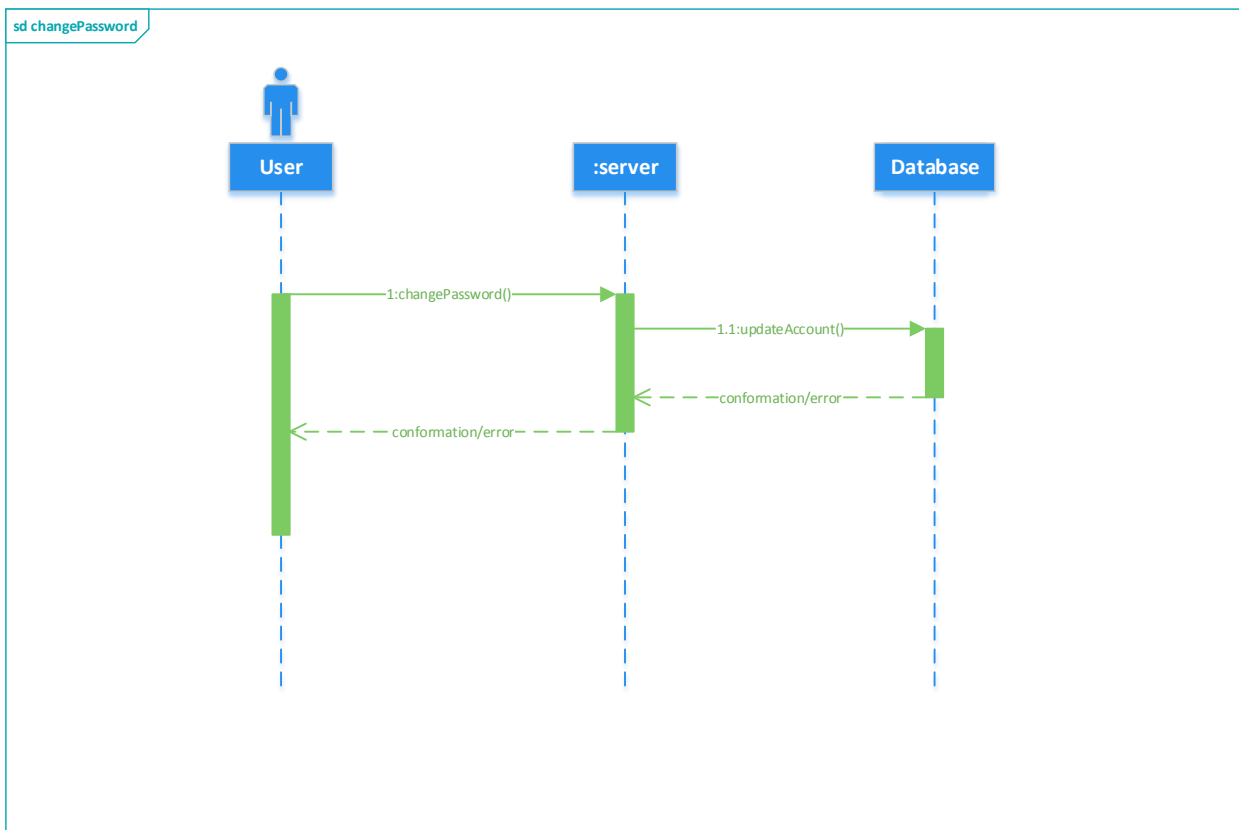
4.0.10. Login Sequence Diagram



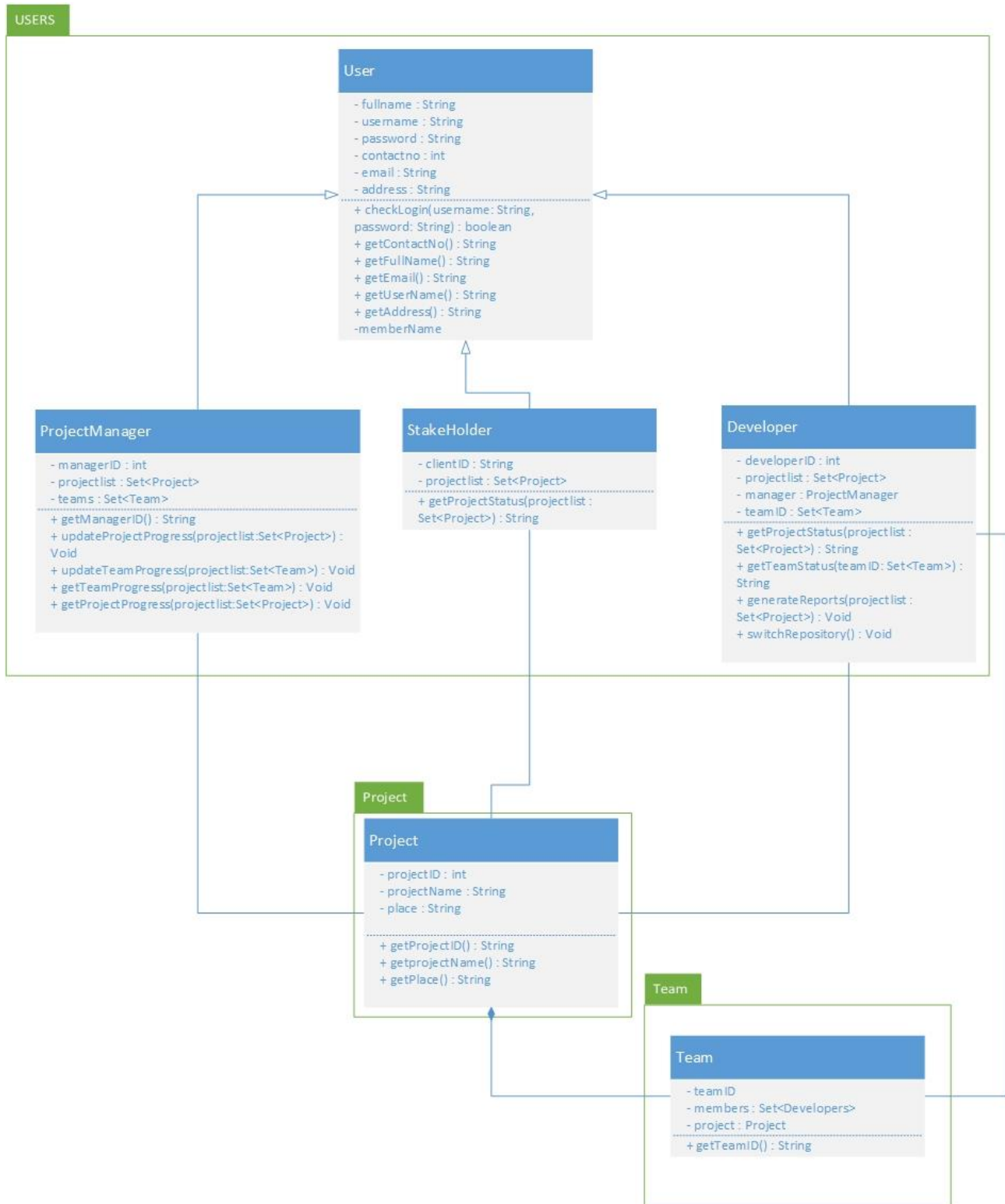
4.0.11. Update project status Sequence Diagram



4.0.12. Change password Sequence Diagrams:



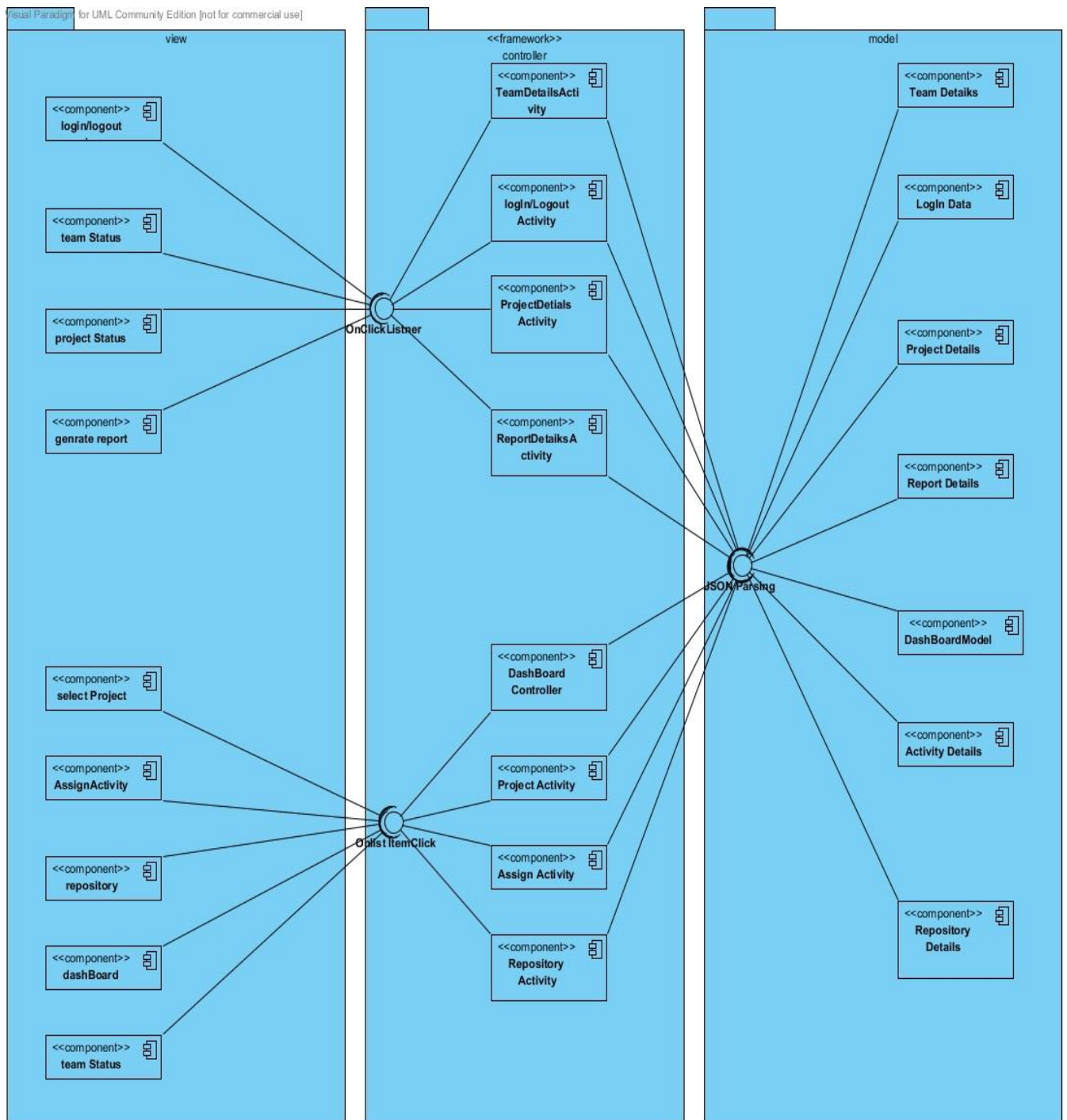
5.0 CLASS DIAGRAM



6.0 IMPLEMENTATION OF MVC ARCHITECTURE



7.0 COMPONENT DIAGRAM



8.0 DETAILED DESIGN WITH MVC

