Project Requirements Document

1. Introduction

The system is a podcast's feed platform . The main purpose of this system is to allow users to explore and listen to podcasts from a wide range of subjects and to provide digital-dust based podcasts suggestions for the users to discover.

1.1 Purpose of the system

As discussed before, the purpose of the system is to give the users the ability to listen to podcasts and explore new podcasts and shows based on their interests. The users will be able to play and rate the different podcasts on the platform and also will be allowed to maintain an actual user through the log-in system of the platform so the platform will be able to suggest podcasts based on their preferences.

1.2 Scope of the system

The scope of the system is to be responsible for the registration of users, managing the different podcasts (upvote, downvote and play) and searching a specific podacts's subject and its related subjects.

The system is not taking part in the content making of the items appearing on the platform. the platform will be free to use and will not obligate the users to pay for using it.

2. Actors and goals

User:

Type of actor: Primary.

Description: Every person that enrolled on the platform.

Goals: Registration, play podcasts , browse podcasts,rate podcasts and publish podcasts.

System's Admin:

Type of actor: Primary.

Description: An enrolled user with 'admin' permissions

Goals: Watch all the enrolled users ,delete all the enrolled users , delete all podcasts ,and all user's goals

System's Manager:

Type of actor: Primary.

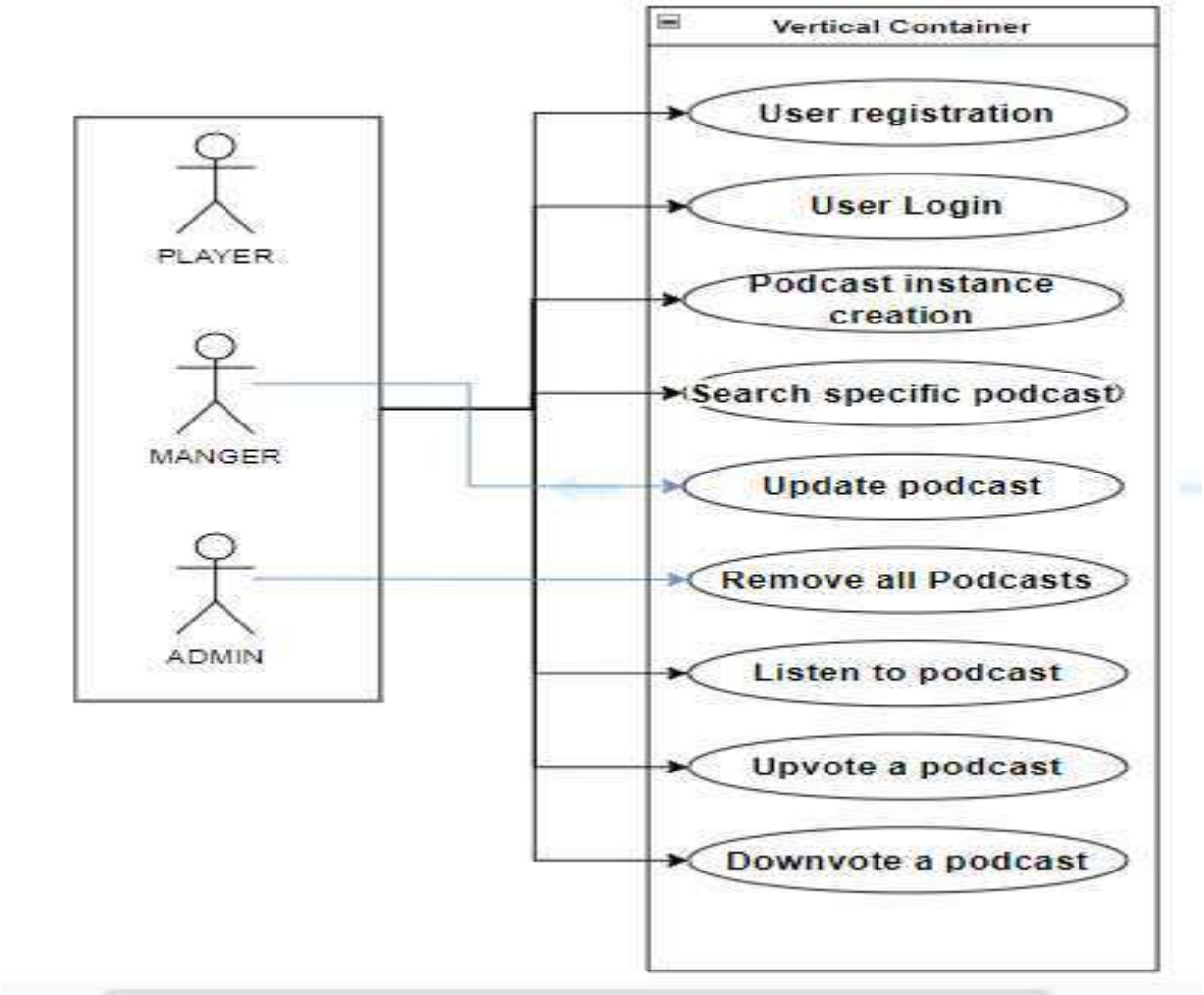
Description: An enrolled user with 'manager' permissions

Goals: Update existing podcast details and all user's goals

3. Functional Requirements

1. Users will be required to log in to the system before using it.
2. The system will allow the search of a podcast's subjects for every actor.
3. A user can see the previous podcasts he was listening to.
4. A user can manage a list of podcasts for future listening.
5. A user can rate the different podcasts.
6. A user can play a podcast.
7. A user can rate a podcast.
8. A user can publish a podcast.
9. An admin can watch all the enrolled users.
10. An admin can delete all the enrolled users.
11. An admin can delete all podcasts.
12. A manager can update existing podcast details.

3.1 Use case diagram



3.2 Use cases

Use Case: **User registration**

Goal: **Registering to the platform**

Participating actors: **User (PLAYER,MANAGER,ADMIN)**

Main flow:

1. User fills registration form.
2. System verifies that there is no existing user with the same ID
3. System notifies the user of successful registration

Alternate flow:

1a. The user didn't fill all the form's fields
1a1. System notifies the user with the proper notification.

Alternate flow:

2a. The user already registered
2a1. System notifies the user with the proper notification

Use Case: **User Login to the system**

Goal: **Login into the platform**

Participating actors: **User (PLAYER,MANAGER,ADMIN)**

Main flow:

1. User asks to login to the platform.
2. System verifies that there is an existing user with the specified ID.
3. System notifies the user of successful login.

Alternate flow:

1a. The user didn't provide the correct login details.
1a1. System notifies the user with the proper notification.

Use Case: **Podcast instance creation**

Goal: **Post podcast onto the platform**

Participating actors: **User (PLAYER,MANAGER,ADMIN)**

Main flow:

1. User asks to publish podcast instance onto the platform
2. System provides the wished podcast.

Alternate flow:

2a. The user didn't fill all the form's fields (aka. name,author,genre)
2a1. System notifies the user with the proper notification.

Alternate flow:

2a. The user provided the wrong user's details
2a1. System notifies the user with the proper notification.

Use Case: Search specific podcast

Goal: the user will navigate successfully to the wished podcast

Participating actors: User (PLAYER,MANAGER,ADMIN)

Main flow:

1. User asks for a specific podcast according to the provided searching field
2. System provides the wished podcast.

Alternate flow:

2a. The wished podcast does not exist on the platform.
2a1. System notifies the user with the proper notification.

Alternate flow:

2a. The user didn't provide a searching method .
2a1. System notifies the user with the proper notification.

Use case: Update podcast

Goal: Updating any detail of a podcast

Participating actors: User (MANAGER)

Main flow:

1. Manager logs in to the system
2. System verifies Manager has an existing user
3. Manager provides the updated podcast instance
4. System verifies that details are valid
5. System updates the podcast in any relevant instance

Alternate flow:

1a. The user didn't provide the correct login details.

1a1. System notifies the user with the proper notification.

Alternate flow:

2a. User is non ‘Manager’ type

2a1. The system notifies the user that only Manager can update podcast instances

Alternate flow:

3a. User provides updated podcast instance with missing essential details

3a1. The system notifies the user with the proper notification.

Use case: Remove all Podcasts

Goal: Remove all podcasts instances from the platform

Participating actors: User (ADMIN)

Main flow:

1. Admin logs in to the system
2. System verifies Admin has an existing user
3. Admin asks the system to remove all podcast instances
4. System removes the podcast from the course list
5. System notifies of successful removal

Alternate flow:

1a. The user didn’t provide the correct login details.

1a1. System notifies the user with the proper notification.

Alternate flow:

2a. User is non ‘Admin’ type

2a1. The system notifies the user that only Admin can remove podcast instances

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Use Case: Listen to podcast

Goal: Let the user listen to his wished podcast

Participating actors: User (PLAYER,MANAGER,ADMIN)

Main flow:

1. User logs in to the system
2. System verifies User has an existing user
3. User asks to listen to specific podcast
4. System checks if the podcast exists
5. System update the listener’s counter
6. System provides the requested podcast

Alternate flow:

2a. The user didn't provide the correct login details.

2a1. System notifies the user with the proper notification.

Alternate flow:

3a. The user didn't specify the proper command.

3a1. System notifies the user that the command is not properly defined.

Alternate flow:

4a. The Podcast does not exist:

4a1. System notifies that the podcast does not exist.

Use Case: **Upvote a podcast**

Goal: **Upvoting the podcast's rating**

Participating actors: **User (PLAYER,MANAGER,ADMIN)**

Main flow:

1. User logs in to the system
2. System verifies User has an existing user
3. User asks to upvote the rating to specific podcast
4. System checks if the podcast exists
5. System update the podcast's upvotes counter
6. System provides the updated podcast

Alternate flow:

2a. The user didn't provide the correct login details.

2a1. System notifies the user with the proper notification.

Alternate flow:

3a. The user didn't specify the proper command.

3a1. System notifies the user that the command is not properly defined.

Alternate flow:

4a. The podcast does not exist:

4a1. System notifies that the podcast does not exist.

Use Case: **Downvote a podcast**

Goal: **Downvoting the podcast's rating**

Participating actors: **User (PLAYER,MANAGER,ADMIN)**

Main flow:

1. User logs in to the system
2. System verifies User has an existing user
3. User asks to downvote the rating to specific podcast

4. System checks if the podcast exists
5. System update the podcast's downvotes counter
6. System provides the updated podcast

Alternate flow:

2a. The user didn't provide the correct login details.
2a1. System notifies the user with the proper notification.

Alternate flow:

3a. The user didn't specify the proper command.
3a1. System notifies the user that the command is not properly defined.

Alternate flow:

4a. The podcast does not exist:
4a1. System notifies that the podcast does not exist.

4. Non - Functional Requirements

Requirement type	Requirement Description	Requirement Number
Usability - U	The system should be easy to learn.	1
Performance - P	The system should allow multiple users to listen and vote podcast up/down at the same time.	2
Supportability - S	System should run on any Browser.	3

Technologies

Lombok -

What is it?

Java library tool that is used to minimize or remove the boilerplate code.
Lombok generates boilerplate codes without presenting lines of code, but instead of creating boilerplate codes inside our source code, Lombok adds all these boilerplate codes at the compile-time in the ".class" file.

Why did we decide to work with it?

Lombok saves time for the developers. In addition to it, it also increases the readability of the source code and saves space.

Where can we find it in our project?

We can find Lombok usage in our boundaries.

Gradle -

What is it?

Build automation tool that is used to automate the creation of applications. The building process includes compiling, linking, and packaging the code. Gradle provides building, testing, and deploying software on several platforms.
The tool is popular for building any software and large projects.

Why did we decide to work with it?

The process becomes more consistent with the help of building automation tools.
Also, it has better performance, is more flexible, and provides better dependencies management (than its competition - Maven).

Where can we find it in our project?

Project level helps us with adding\ updating dependencies.

React -

What is it?

An open-source JavaScript library that is used for building user interfaces. It's used for handling the view layer for web and mobile apps. React also allows us to create reusable UI components.

Why did we decide to work with it?

React allows developers to create large web applications that can change data, without reloading the page. The main purpose of React is to be fast, scalable, and simple. It works only on user interfaces in the application. In addition, some of our team members are already experienced with React.

Where can we find it in our project?

Client code.

MSSQL -

What is it?

MSSQL is a suite of database software published by Microsoft . it includes a relational database engine, which stores data in tables, columns, and rows, Integration Services (SSIS), which is a data movement tool for importing, exporting, and transforming data.

Why did we decide to work with it?

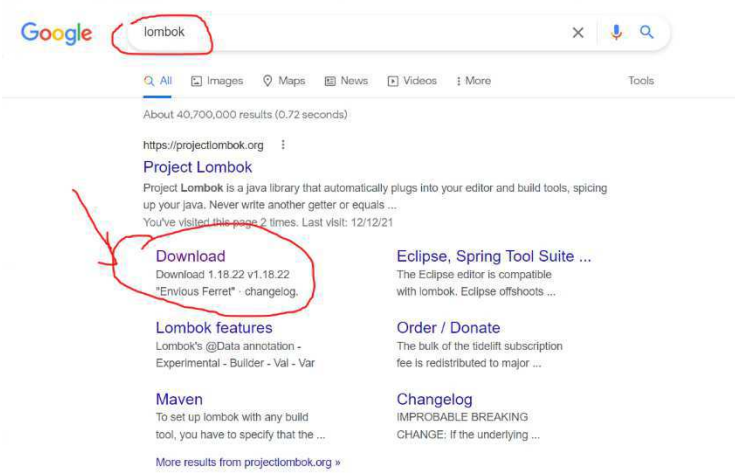
The Spring Framework provides extensive support for working with SQL databases, from direct JDBC access using JdbcTemplate to complete "object relational mapping" technologies such as Hibernate.
Therefore, it was just logical for us to go for relational SQL rather than NOSQL technologies.
Some of the team members feel much more confident engaging with SQL because all of us Took the 'Databases 101' course during our second year at the college.

Where can we find it in our project?

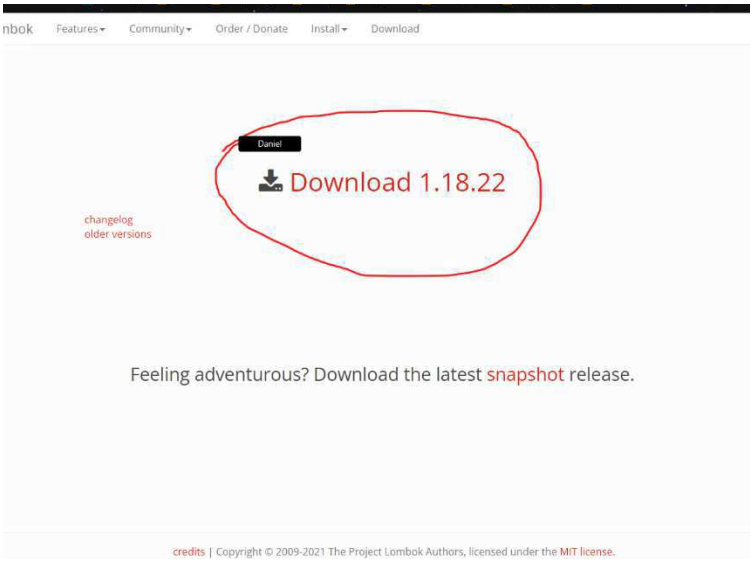
The database tables.

Lombok installation guide

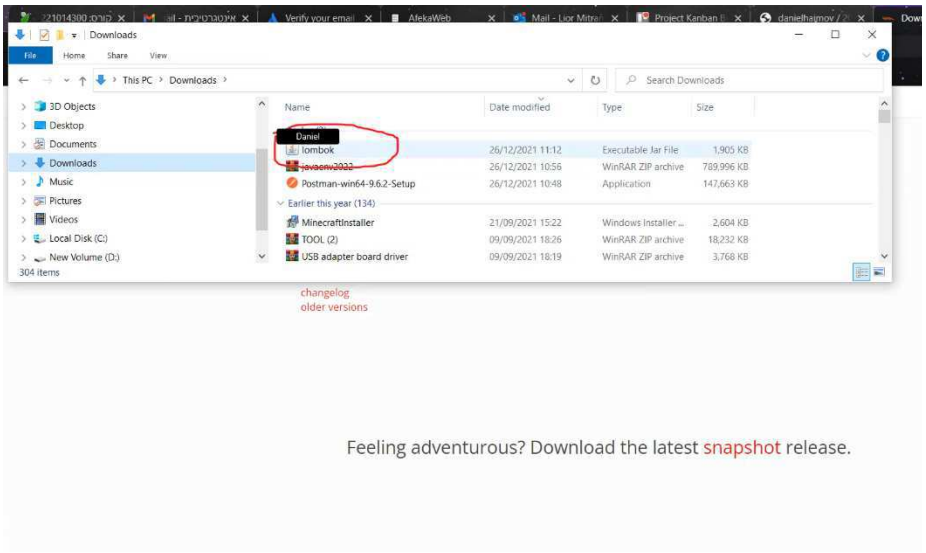
1. Search for Lombok in google and choose the Download link.



2. Download the latest major 1 version (1.+) of Lombok.

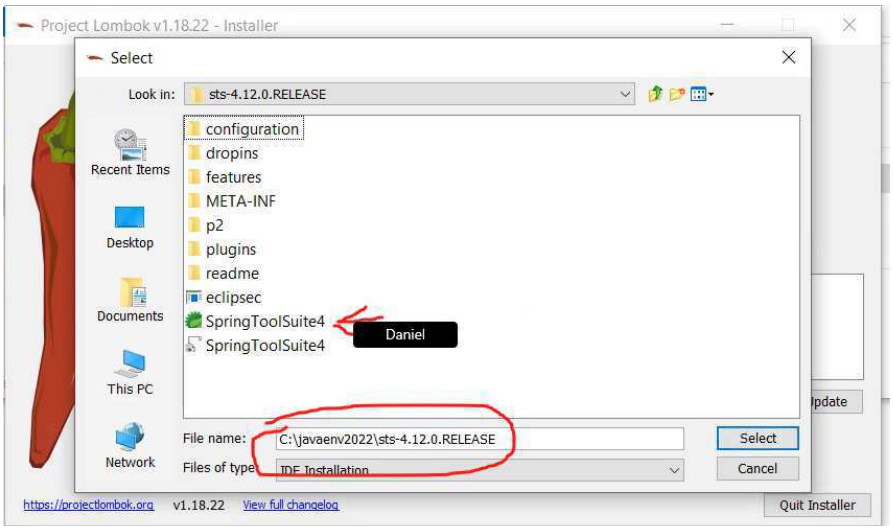


3. Go to the download path and open the Lombok.

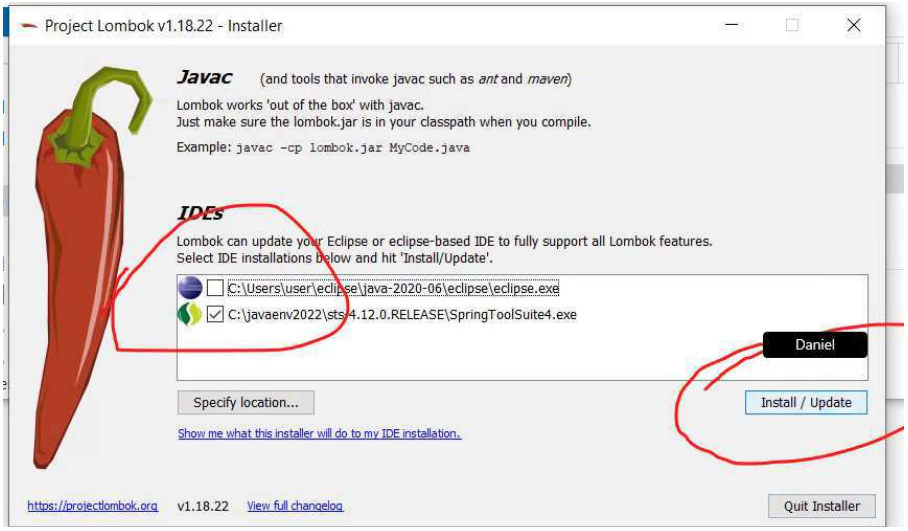


4. Click “Specify location…” Button.

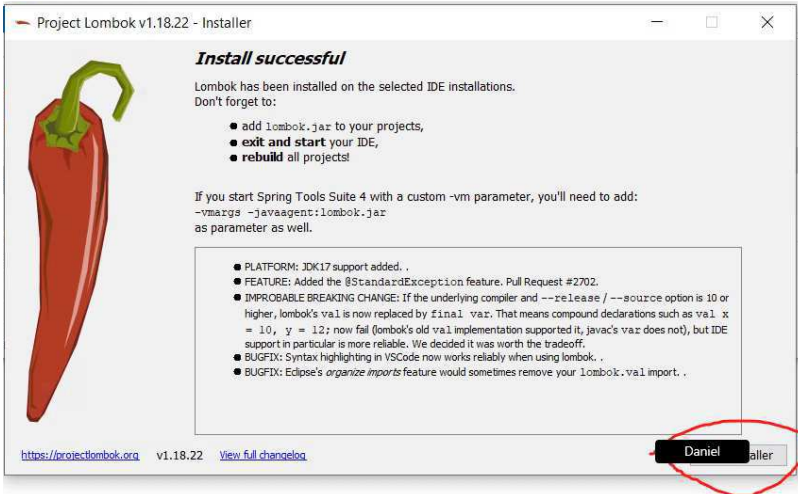
5. Go to the SpringToolSuite Directory (Usually C:\javaenv2022\sts-4.12.0.RELEASE). Select the SpringToolSuite.



6. Remove all the unnecessary IDEs and click the “Install / Update” Button.

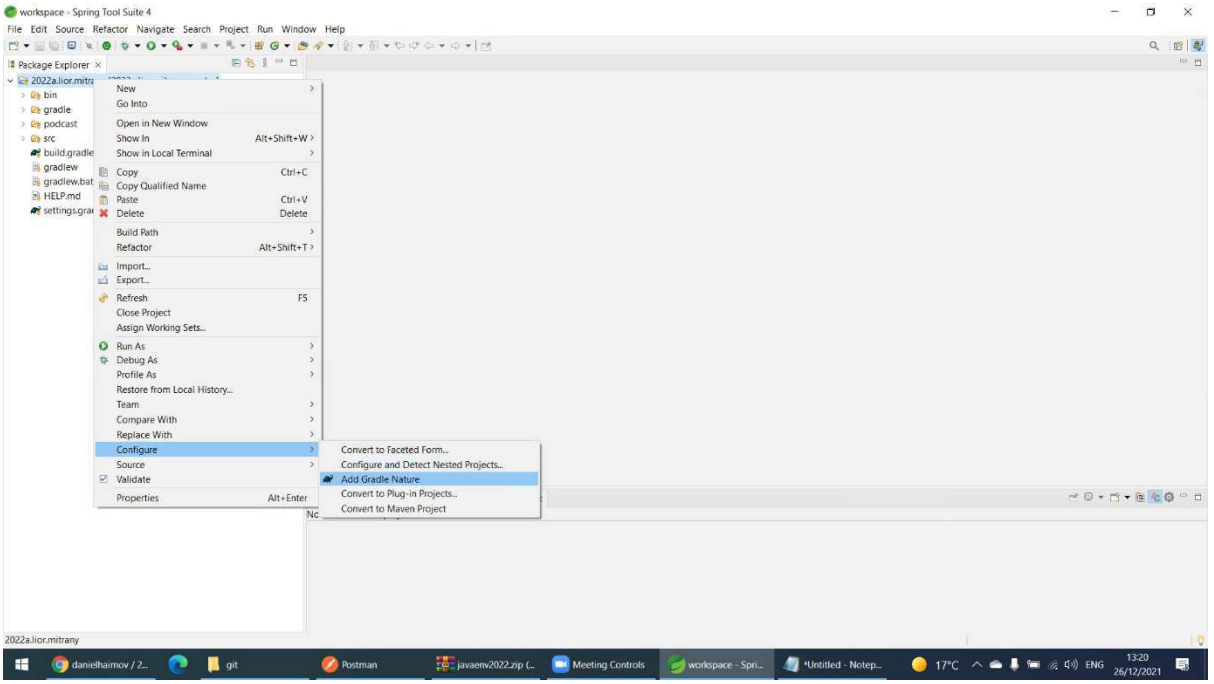


7. Quit the installer.



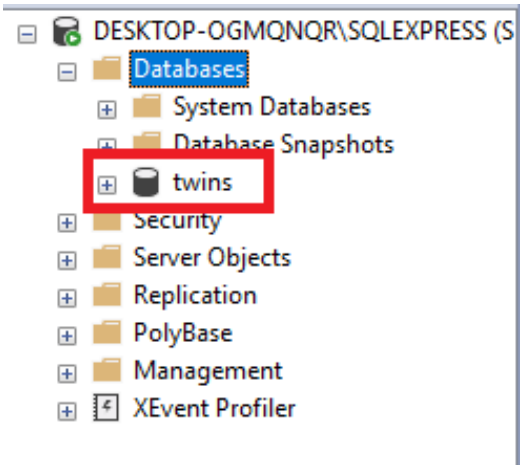
8. Now you can Clone the project (Notice: if the project is already cloned so rebuild the project).

9. Right click the project -> Configure -> Add Gradle Nature.

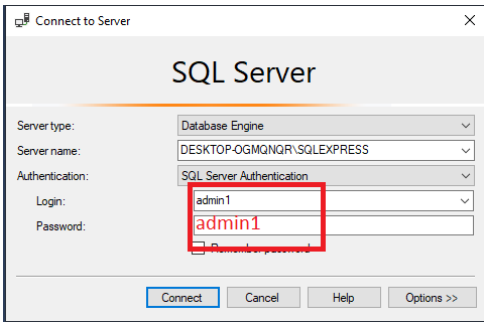


לאחר יצירת משתמש בשרת:

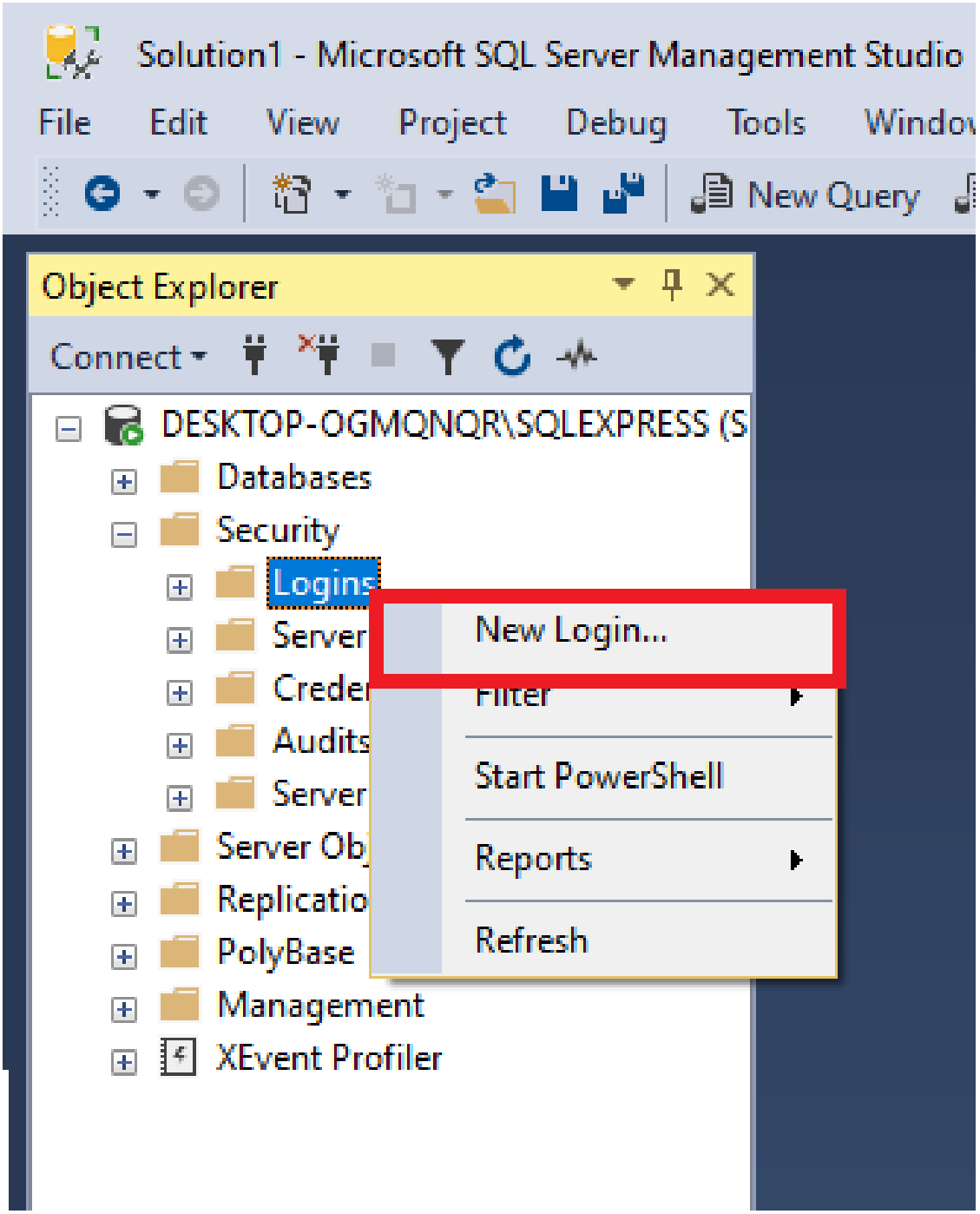
לאחר יצירת הDB בשרת:

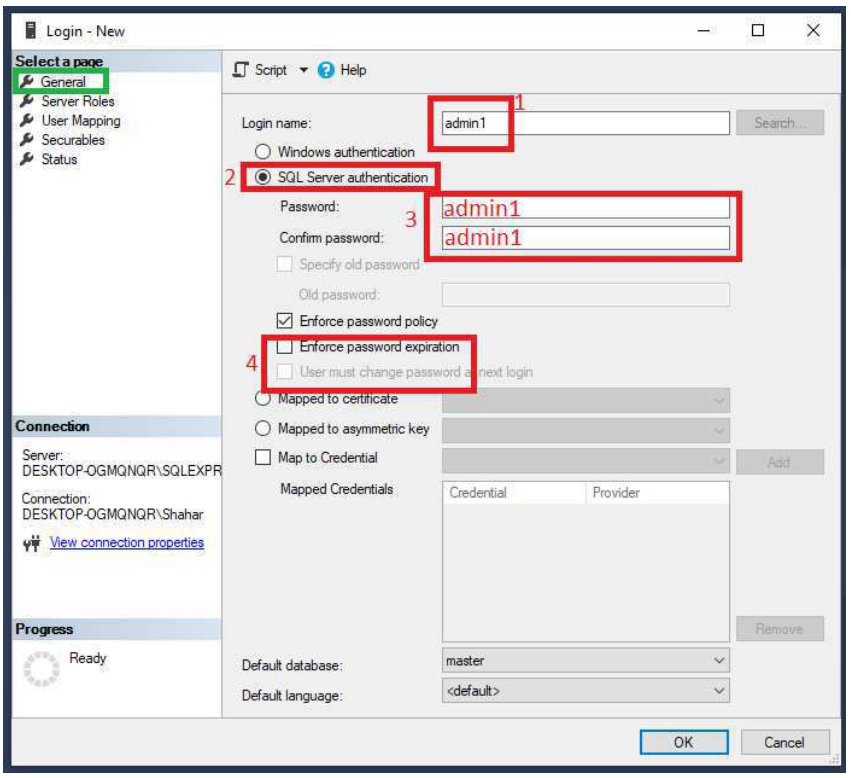


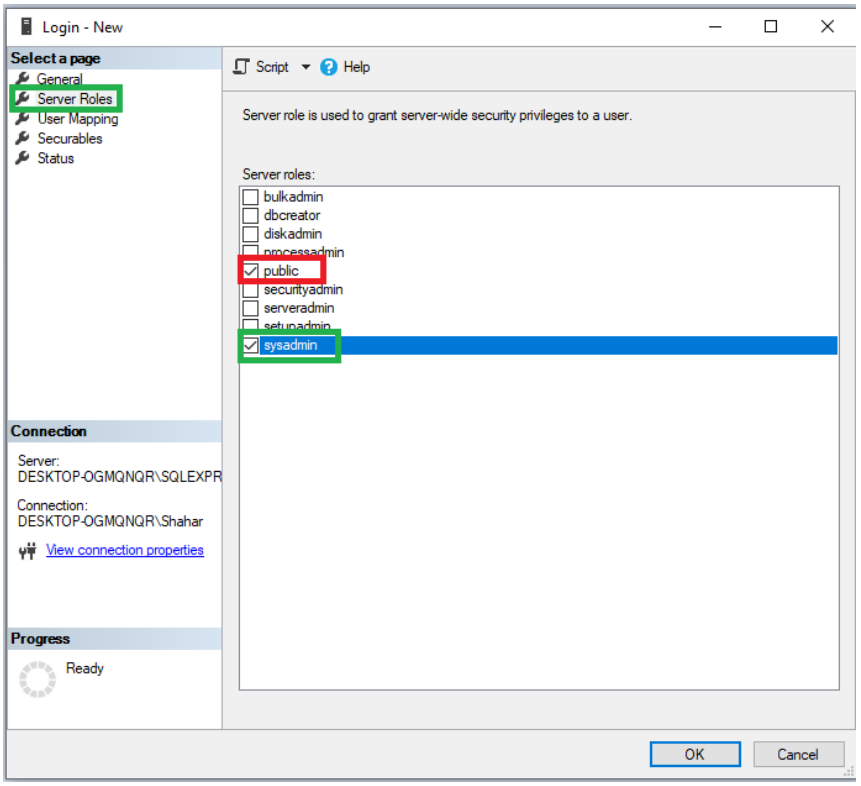
נרצה ליצור משתמש בשרת שאיתו נוכל להיתחבר בצורה מרוחקת.

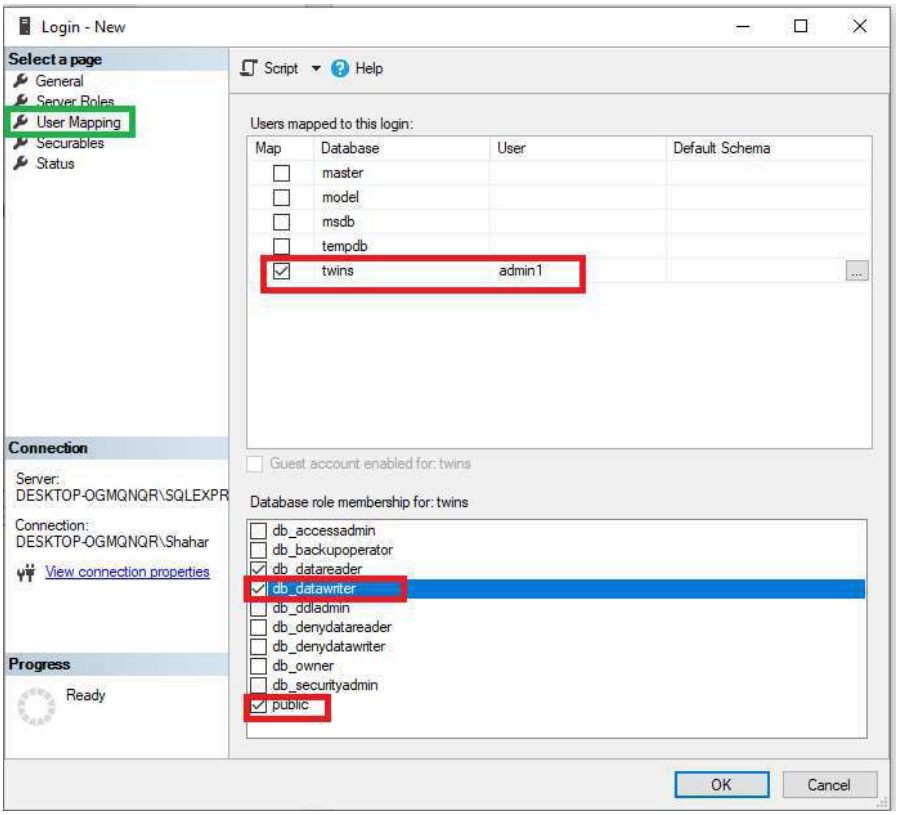


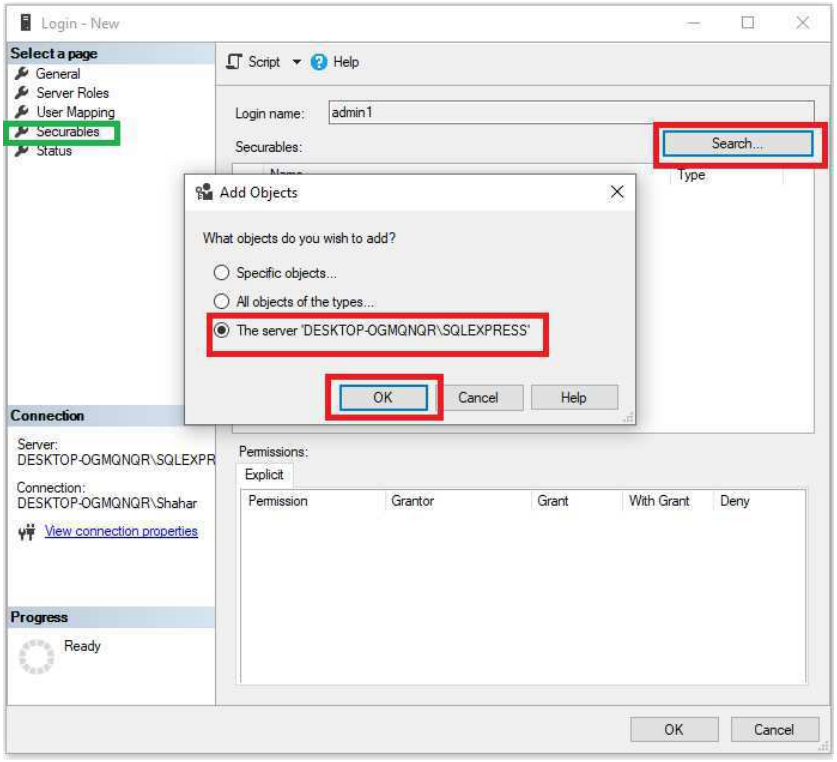
<u>יצירת המשתמש :</u>

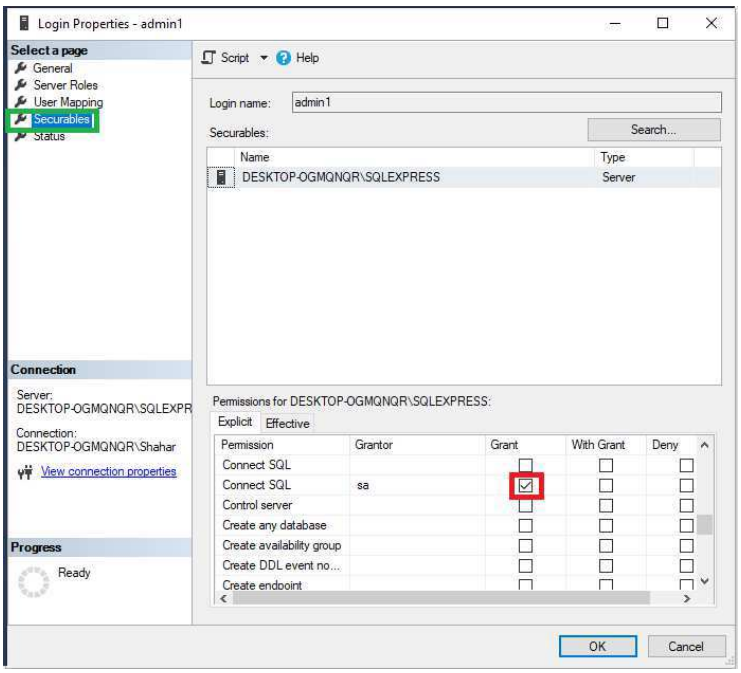

Solution1 - Microsoft SQL Server Management Studio
File
Edit
View
Project
Debug
Tools
New Query
Object Explorer
Connect
DESKTOP-OGMQNQR\SQLEXPRESS (S
Databases
Security
Logins
Server
Crede
Audits
Server
Server Obj
Replicatio
PolyBase
Management
XEvent Profiler
New Login...
Filter
Start PowerShell
Reports
Refresh

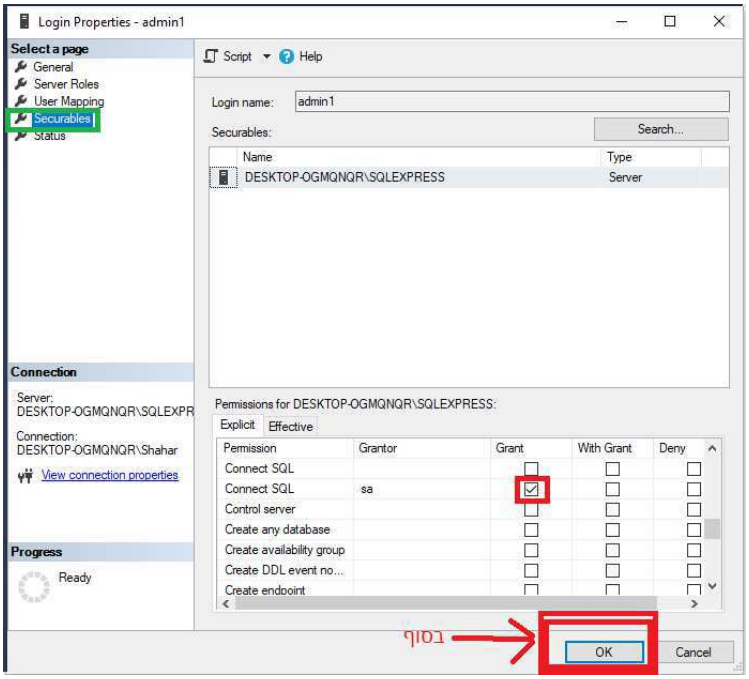

Login - New
Select a page
General
Server Roles
User Mapping
Securables
Status
Script
Help
Login name:
admin1
1
Search...
Windows authentication
2
SQL Server authentication
Password:
admin1
3
Confirm password:
admin1
Specify old password
Old password:
Enforce password policy
Enforce password expiration
4
User must change password at next login
Mapped to certificate
Mapped to asymmetric key
Map to Credential
Add
Mapped Credentials
Credential
Provider
Remove
Default database:
master
Default language:
<default>
Connection
Server:
DESKTOP-OGMQNQR\SQLEXPR
Connection:
DESKTOP-OGMQNQR\Shahar
View connection properties
Progress
Ready
OK
Cancel


Login - New
Select a page
General
Server Roles
User Mapping
Securables
Status
Script
Help
Server role is used to grant server-wide security privileges to a user.
Server roles:
bulkadmin
dbcreator
diskadmin
processadmin
public
securityadmin
serveradmin
setupadmin
sysadmin
Connection
Server:
DESKTOP-OGMQNQR\SQLEXPR
Connection:
DESKTOP-OGMQNQR\Shahar
View connection properties
Progress
Ready
OK
Cancel

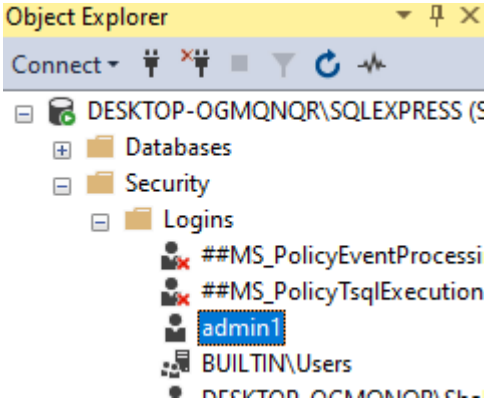

Login - New
Select a page
General
Server Roles
User Mapping
Securables
Status
Script
Help
Users mapped to this login:
Map
Database
User
Default Schema
master
model
msdb
tempdb
twins
admin1
Guest account enabled for: twins
Database role membership for: twins
db_accessadmin
db_backupoperator
db_datareader
db_datawriter
db_ddladmin
db_denydatareader
db_denydatawriter
db_owner
db_securityadmin
public
Connection
Server:
DESKTOP-OGMQNQR\SQLEXPR
Connection:
DESKTOP-OGMQNQR\Shahar
View connection properties
Progress
Ready
OK
Cancel


Login - New
Select a page
General
Server Roles
User Mapping
Securables
Status
Script
Help
Login name:
admin1
Securables:
Search...
Type
Add Objects
What objects do you wish to add?
Specific objects...
All objects of the types...
The server 'DESKTOP-OGMQNQR\SQLEXPRESS'
OK
Cancel
Help
Connection
Server:
DESKTOP-OGMQNQR\SQLEXPR
Connection:
DESKTOP-OGMQNQR\Shahar
View connection properties
Progress
Ready
Permissions:
Explicit
Permission
Grantor
Grant
With Grant
Deny
OK
Cancel



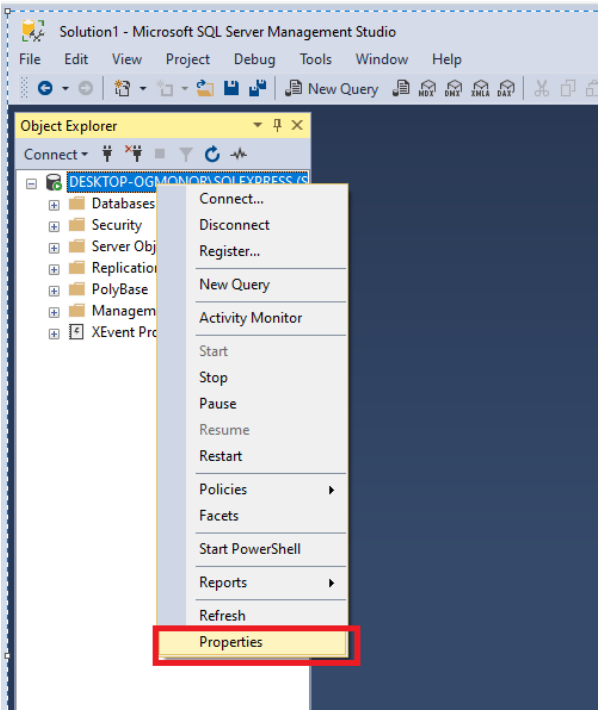


כעת נוצר משתמש admin1 admin1:

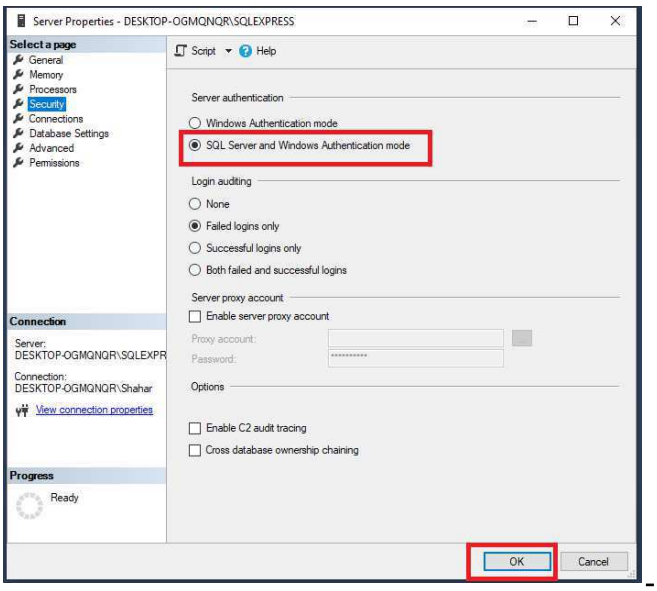


<u>עדכון ההגדרה להתחברות מרחוק:</u>

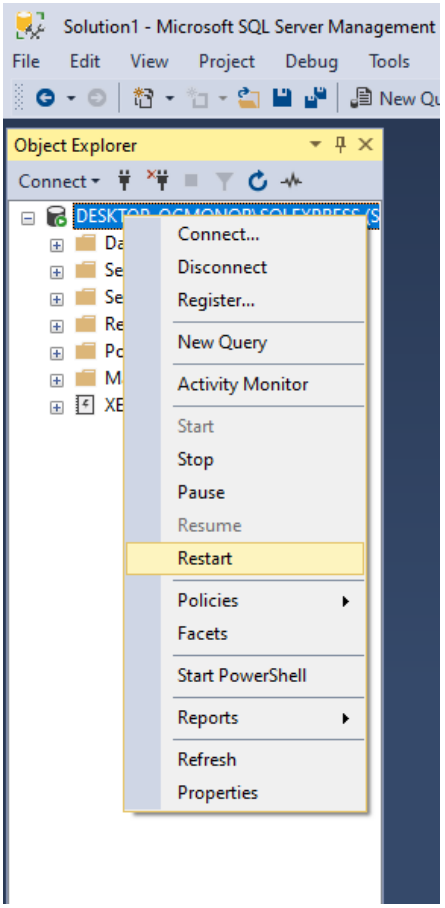
כניסה להגדרות השרת:



עדכון ההגדרות:

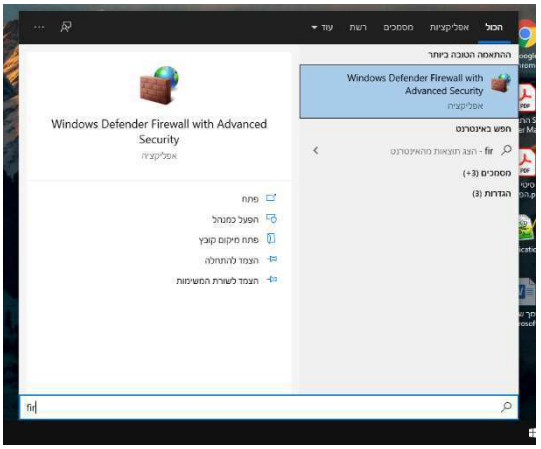

Server Properties - DESKTOP-OGMQNQR\SQLEXPRESS
Select a page
General
Memory
Processors
Security
Connections
Database Settings
Advanced
Permissions
Script
Help
Server authentication
Windows Authentication mode
SQL Server and Windows Authentication mode
Login auditing
None
Failed logins only
Successful logins only
Both failed and successful logins
Server proxy account
Enable server proxy account
Proxy account:
Password:
Options
Enable C2 audit tracing
Cross database ownership chaining
Connection
Server:
DESKTOP-OGMQNQR\SQLEXPR
Connection:
DESKTOP-OGMQNQR\Shahar
View connection properties
Progress
Ready
OK
Cancel

אתחול השרת:

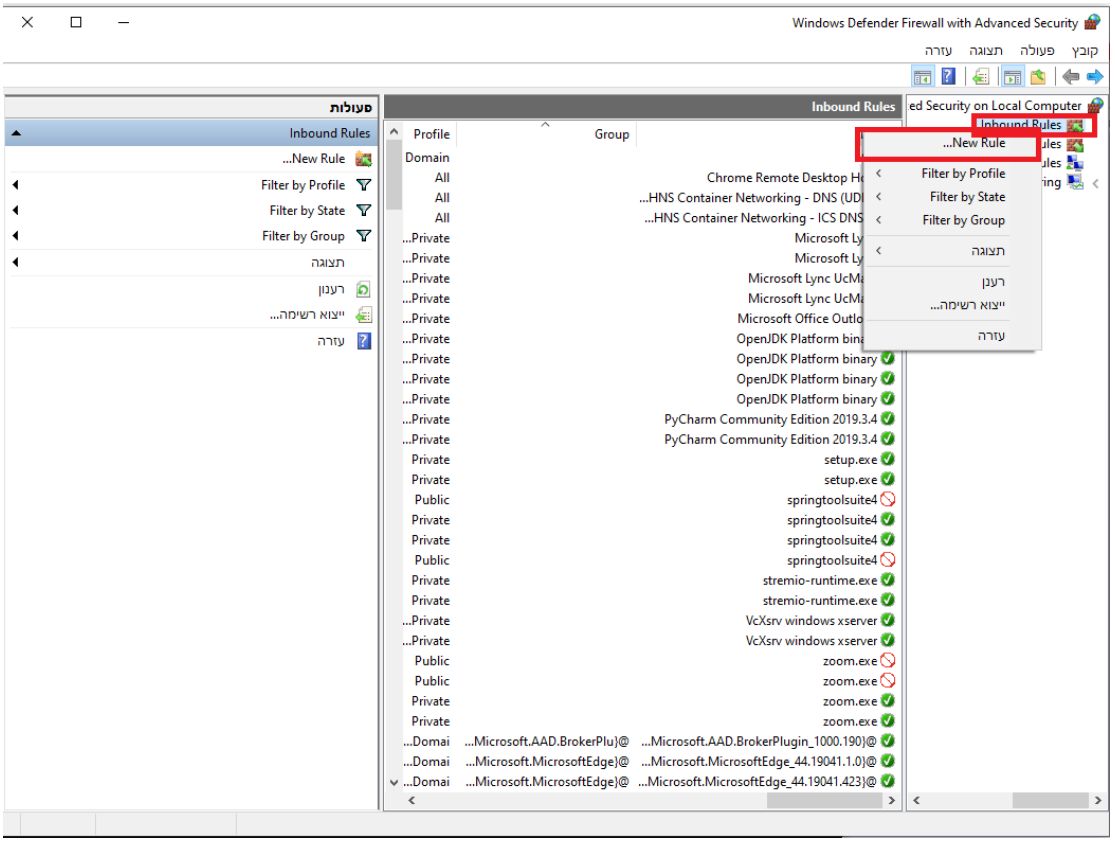

Solution1 - Microsoft SQL Server Management
File
Edit
View
Project
Debug
Tools
Object Explorer
Connect
Connect...
Disconnect
Register...
New Query
Activity Monitor
Start
Stop
Pause
Resume
Restart
Policies
Facets
Start PowerShell
Reports
Refresh
Properties

<u>אי חסימת פורט 1433 (הפורט הדיפולטי של MsSQL Server) ע"י הfirewall:</u>

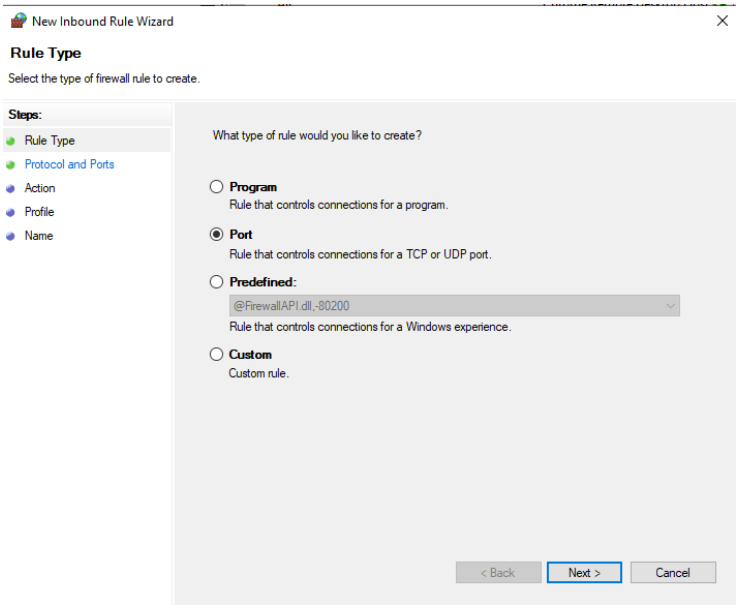
כנס להגדרות firewall:

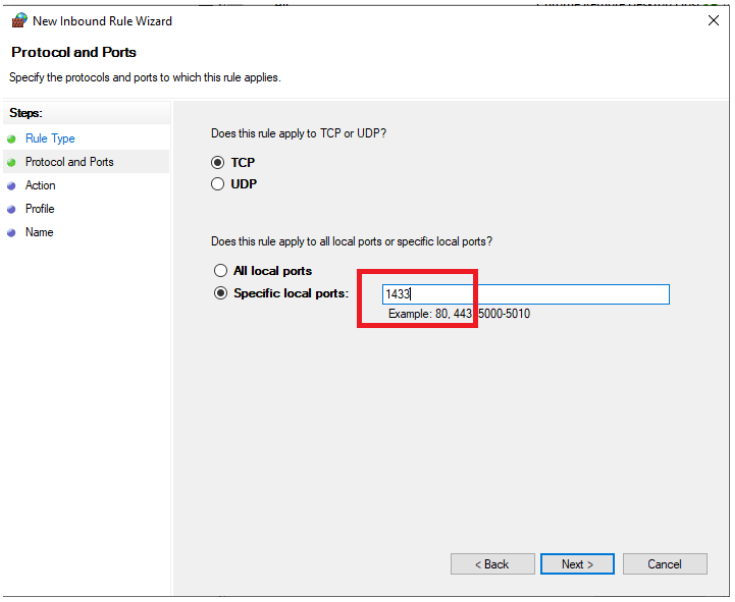


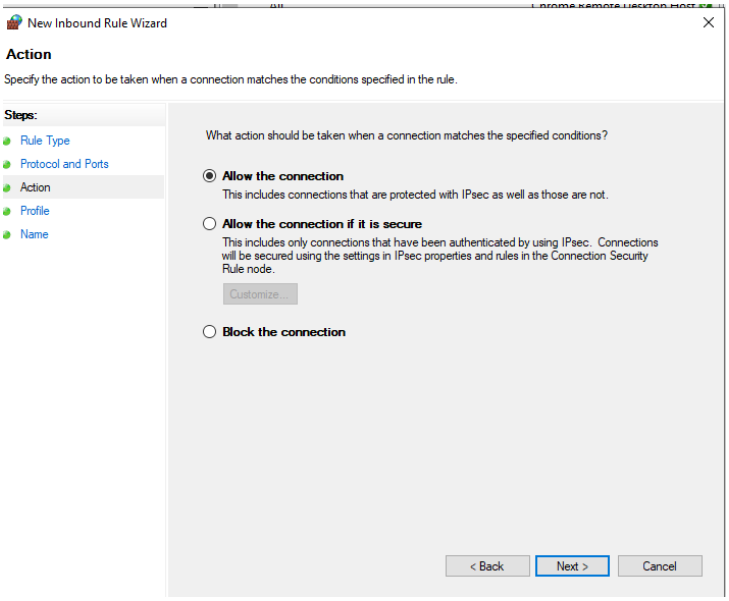
לאחר מכן:

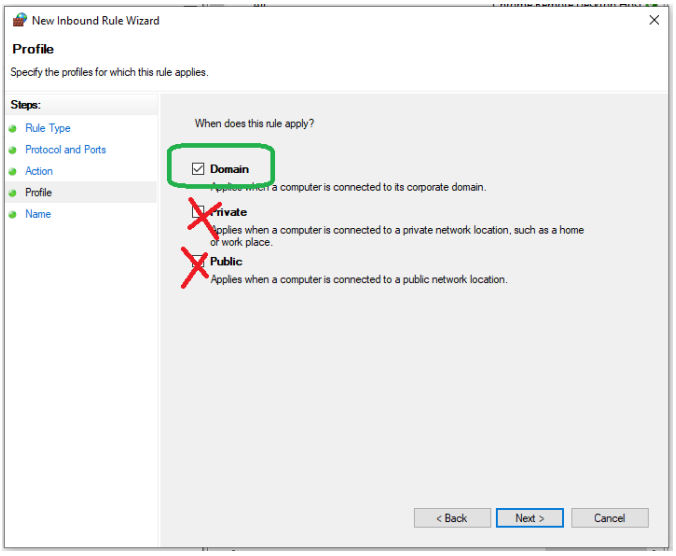


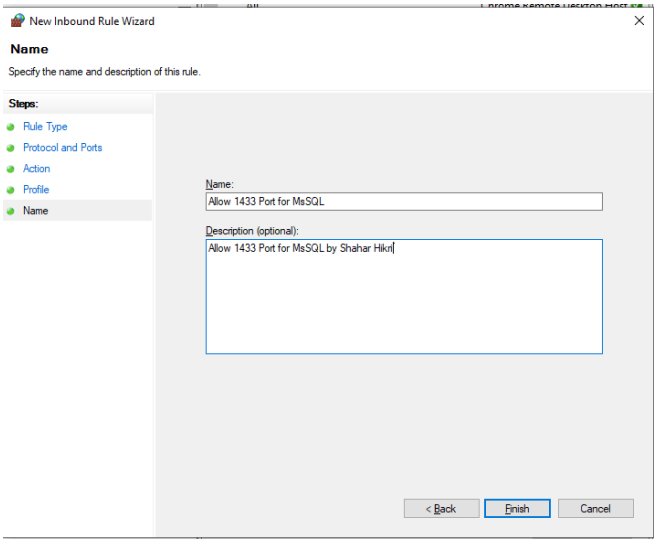
יש למלא את החלון לפי ההוראות הבאות:

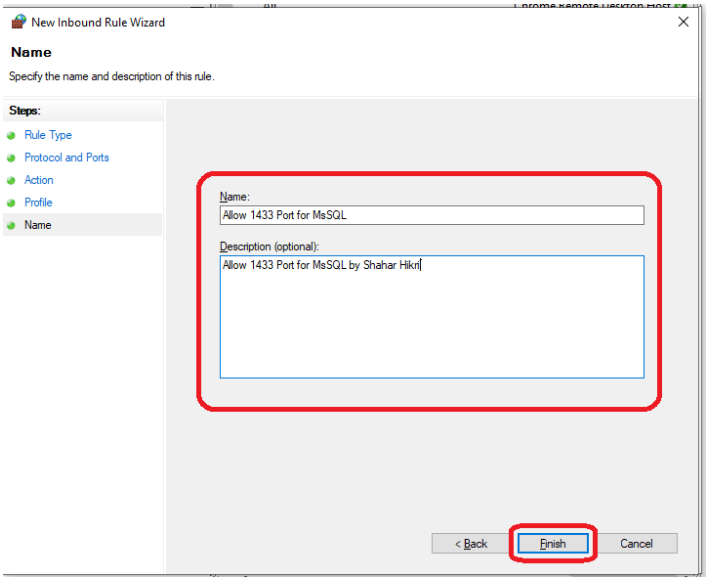





New Inbound Rule Wizard
Action
Specify the action to be taken when a connection matches the conditions specified in the rule.
Steps:
Rule Type
Protocol and Ports
Action
Profile
Name
What action should be taken when a connection matches the specified conditions?
Allow the connection
This includes connections that are protected with IPsec as well as those are not.
Allow the connection if it is secure
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.
Customize...
Block the connection
< Back
Next >
Cancel


New Inbound Rule Wizard
Profile
Specify the profiles for which this rule applies.
Steps:
Rule Type
Protocol and Ports
Action
Profile
Name
When does this rule apply?
Domain
Applies when a computer is connected to its corporate domain.
Private
Applies when a computer is connected to a private network location, such as a home or work place.
Public
Applies when a computer is connected to a public network location.
< Back
Next >
Cancel

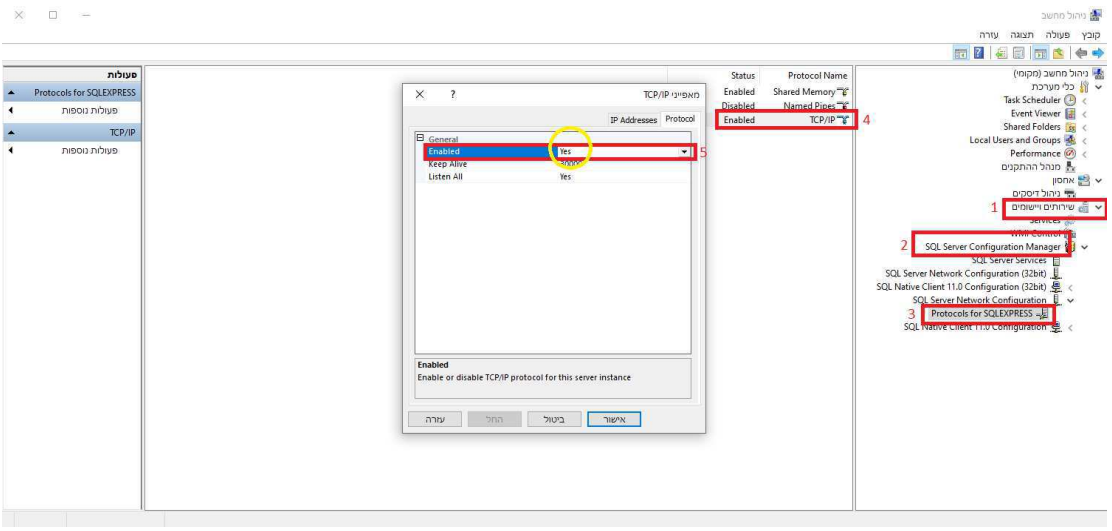

New Inbound Rule Wizard
Name
Specify the name and description of this rule.
Steps:
Rule Type
Protocol and Ports
Action
Profile
Name
Name:
Allow 1433 Port for MsSQL
Description (optional):
Allow 1433 Port for MsSQL by Shahar Hikri
< Back
Finish
Cancel

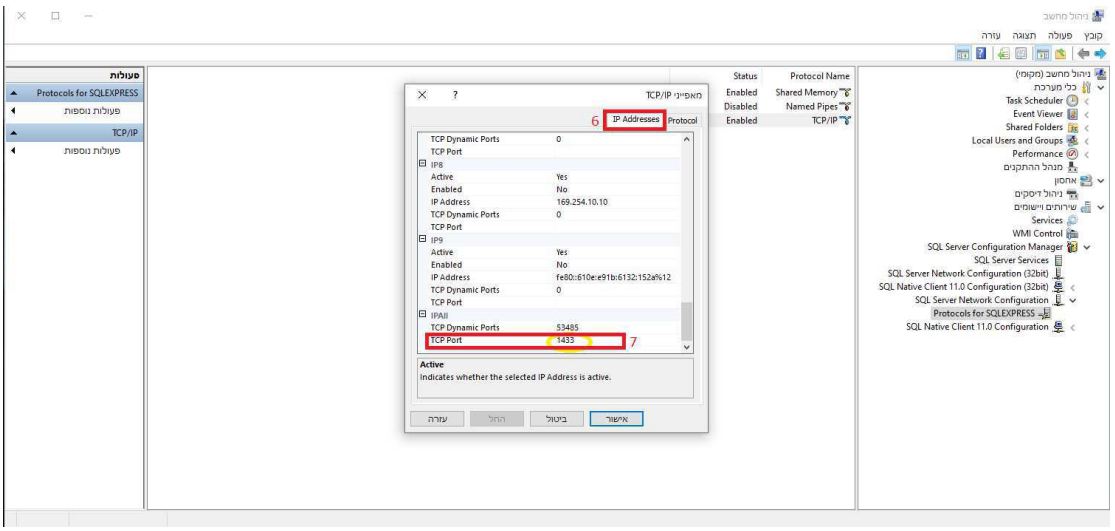


<u>הפעלת הפורט 1433 לתקשורת עם השרת</u>

כנס למסך "ניהול מחשב" ע"י לחצן ימני על "מחשב זה" (This PC) ואז על "ניהול":

לאחר מכן:




ניהול מחשב
קובץ פעולה תצוגה עזרה
ניהול מחשב (מקומי)
כלי מערכת
Task Scheduler
Event Viewer
Shared Folders
Local Users and Groups
Performance
מנהל ההתקנים
אחסון
ניהול דיסקים
שירותים ויישומים
Services
WMI Control
SQL Server Configuration Manager
SQL Server Services
SQL Server Network Configuration (32bit)
SQL Native Client 11.0 Configuration (32bit)
SQL Server Network Configuration
Protocols for SQLEXPRESS
SQL Native Client 11.0 Configuration
Protocol Name
Status
Shared Memory
Enabled
Named Pipes
Disabled
TCP/IP
Enabled
פעולות
Protocols for SQLEXPRESS
פעולות נוספות
TCP/IP
פעולות נוספות
מאפייני TCP/IP
IP Addresses
Protocol
6
TCP Dynamic Ports 0
TCP Port
IP8
Active Yes
Enabled No
IP Address 169.254.10.10
TCP Dynamic Ports 0
TCP Port
IP9
Active Yes
Enabled No
IP Address fe80::610e:e91b:6132:152a%12
TCP Dynamic Ports 0
TCP Port
IPAll
TCP Dynamic Ports 53485
TCP Port 1433
7
Active
Indicates whether the selected IP Address is active.
עזרה
החל
ביטול
אישור

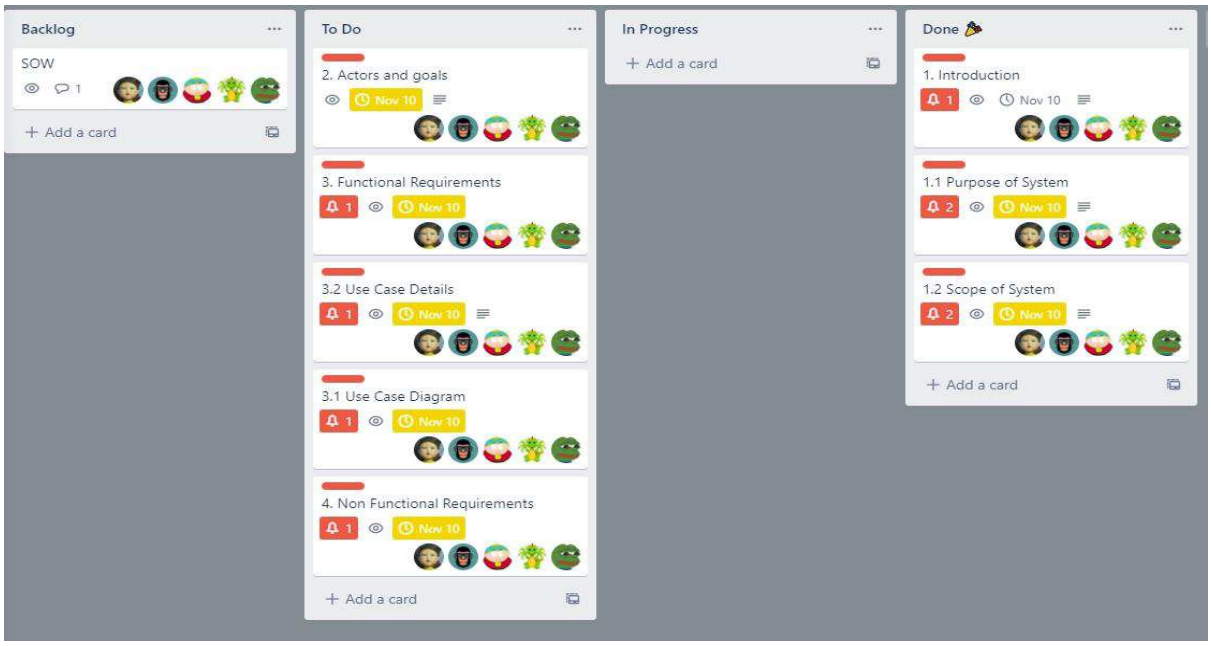
Sprint 1

project initiation:

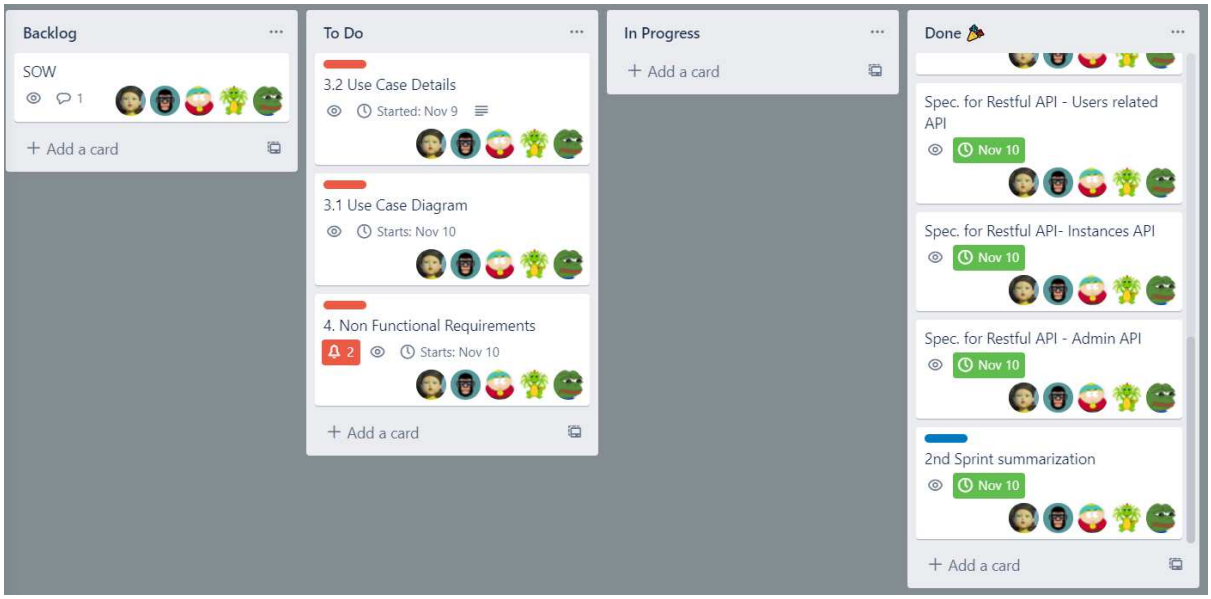
after Project progress report submission:

Sprint 2

Start of the sprint - 27.10 :

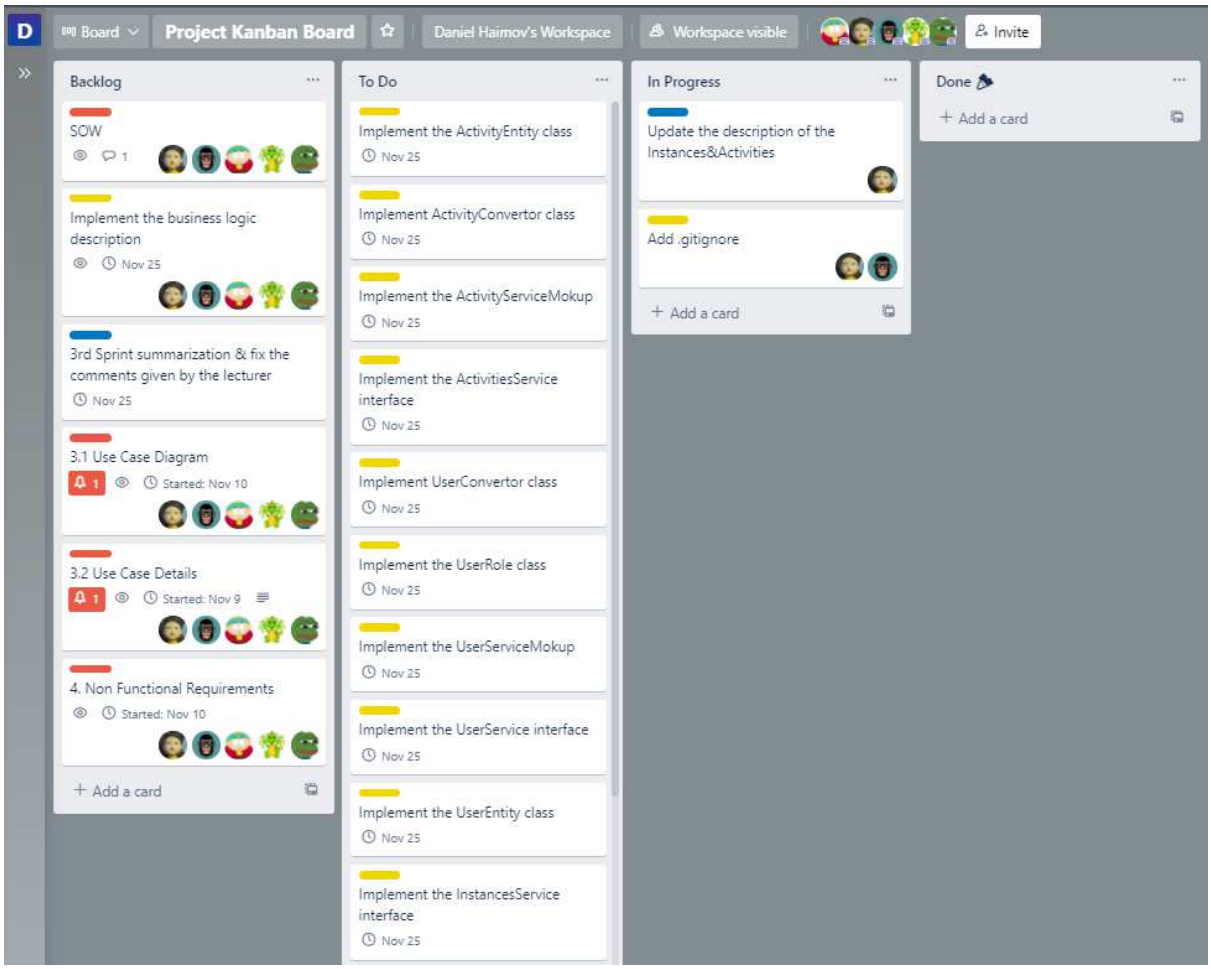


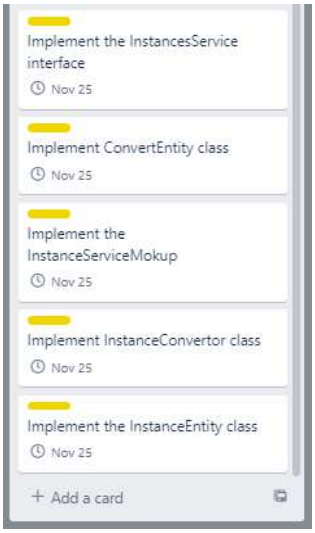
End of the sprint - 09.11:



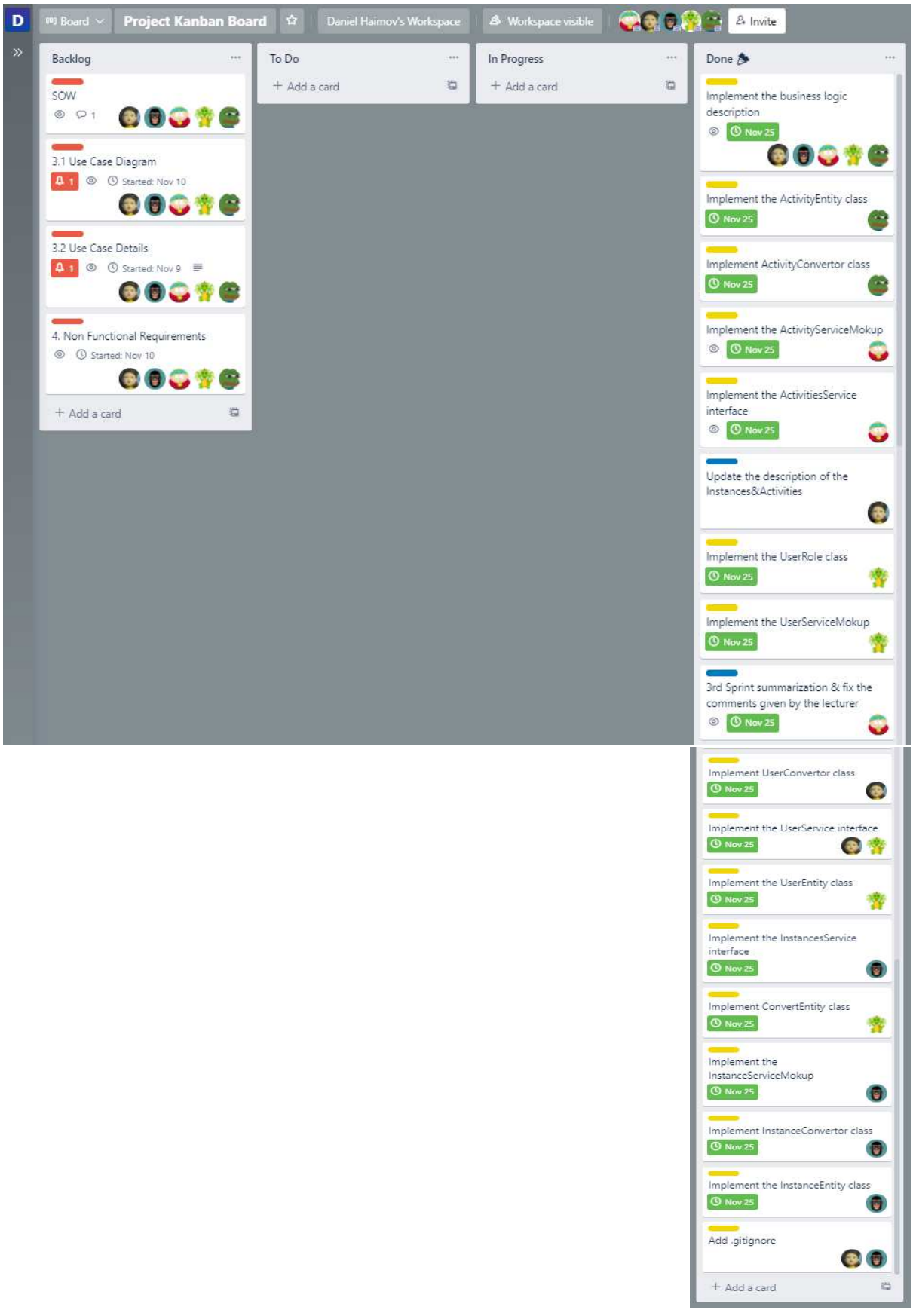
Sprint 3

Start of the sprint - 10.11.21 :



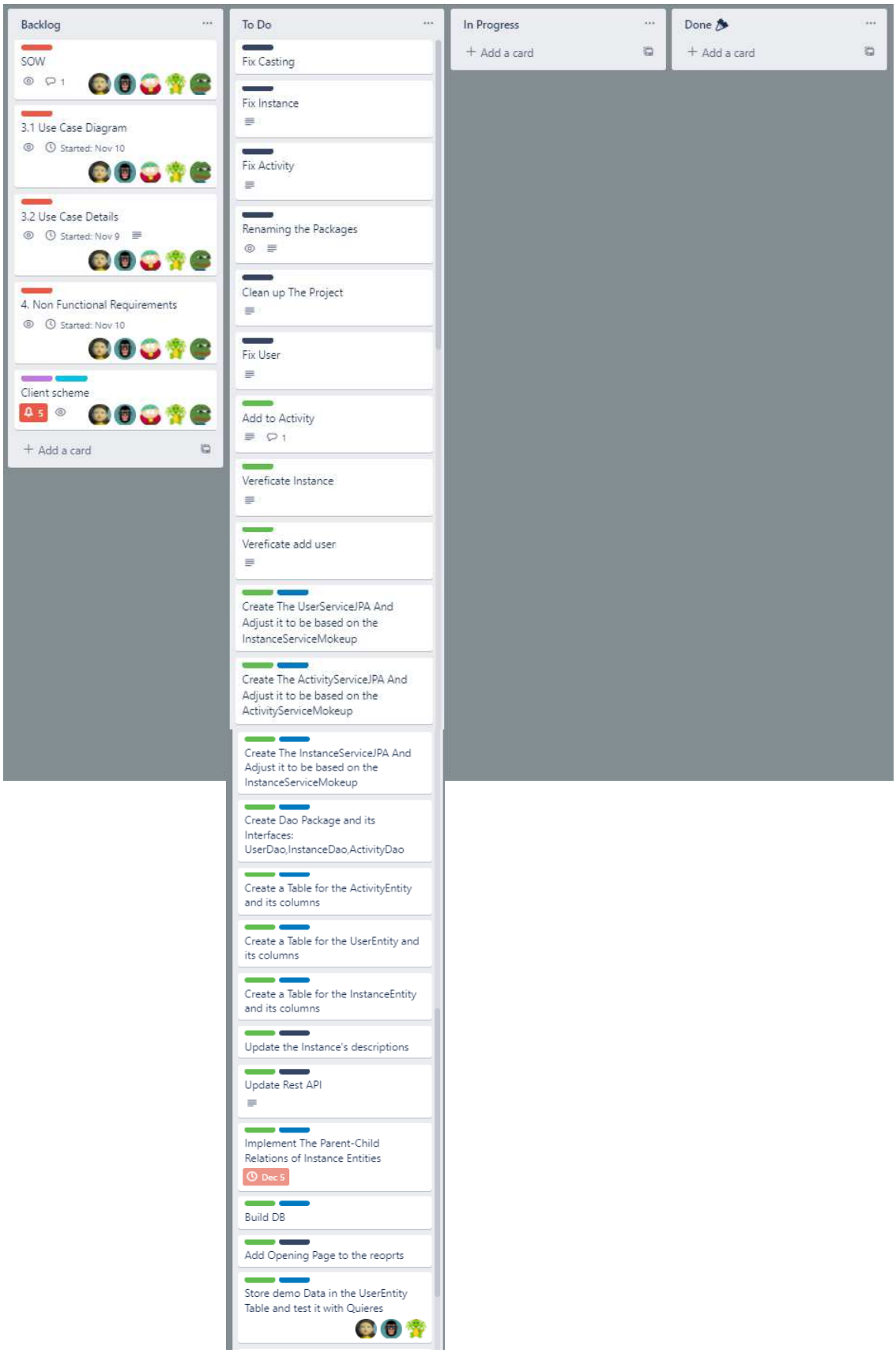


End of the sprint - 24.11.21:

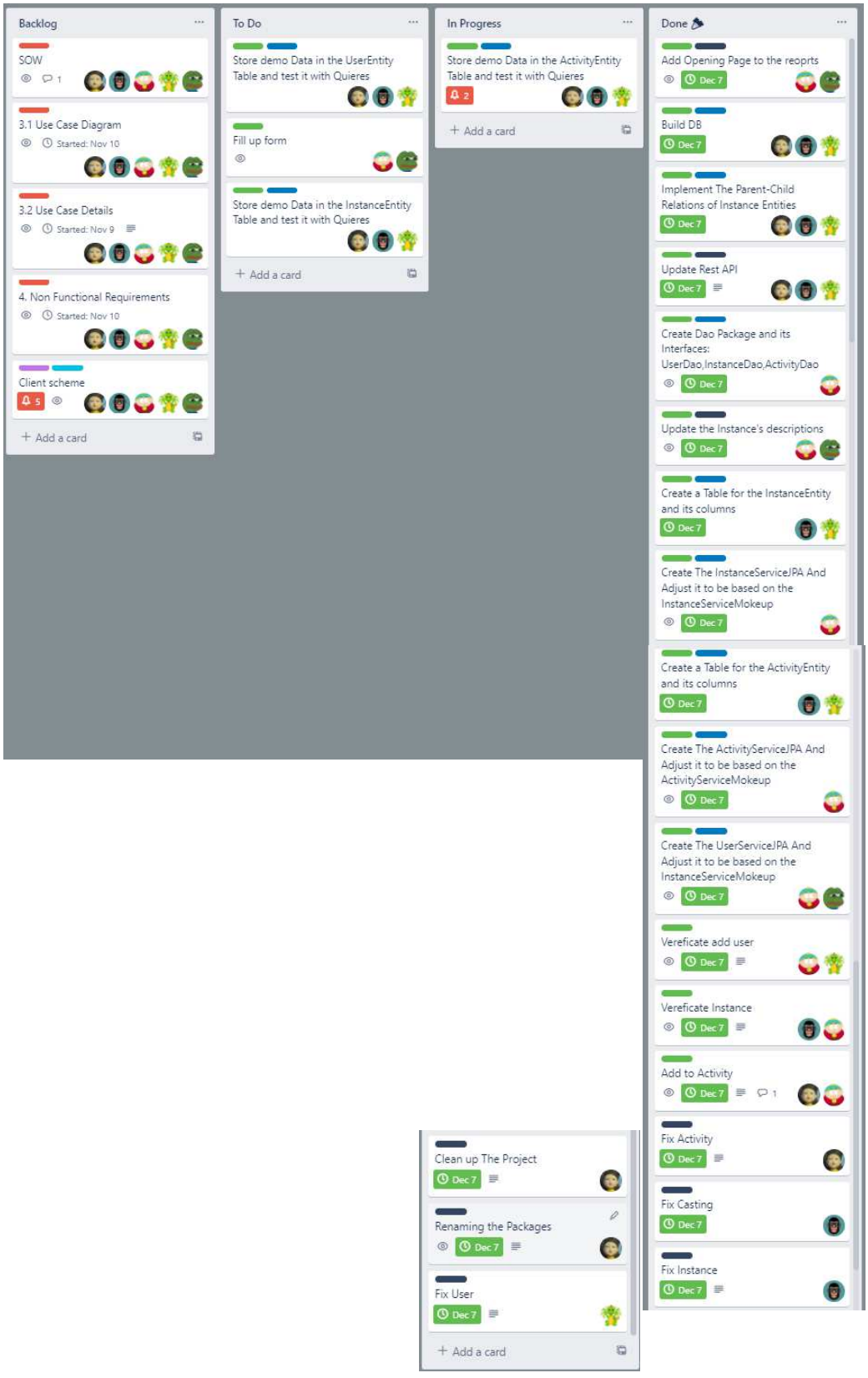


Sprint 4

Start of the sprint - 24.11.21 :

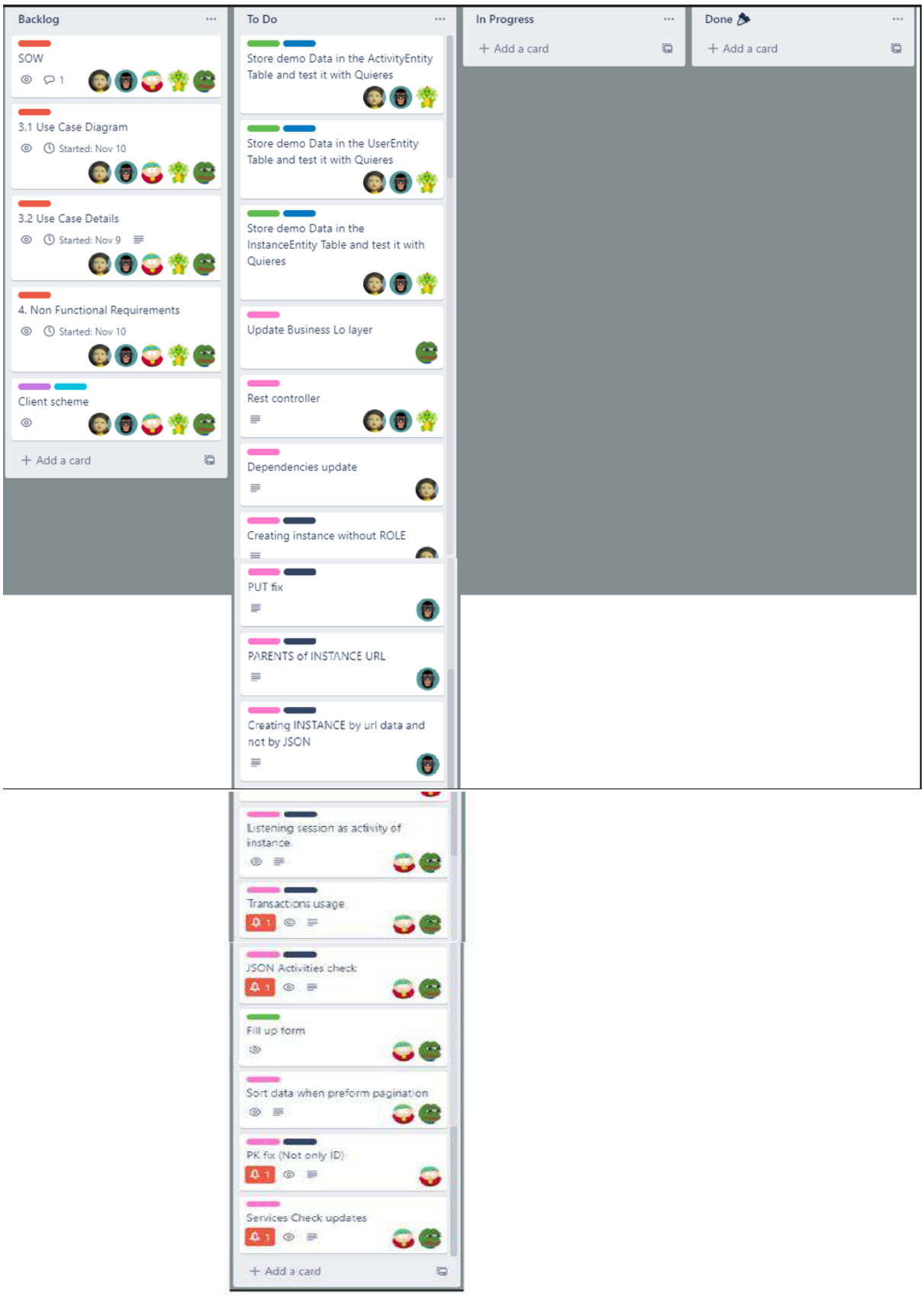


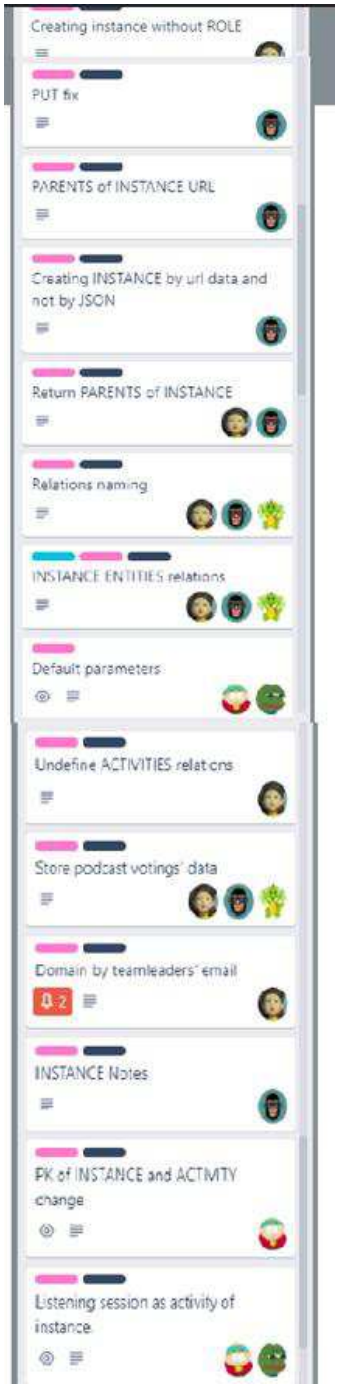
End of the sprint - 07.12.21:



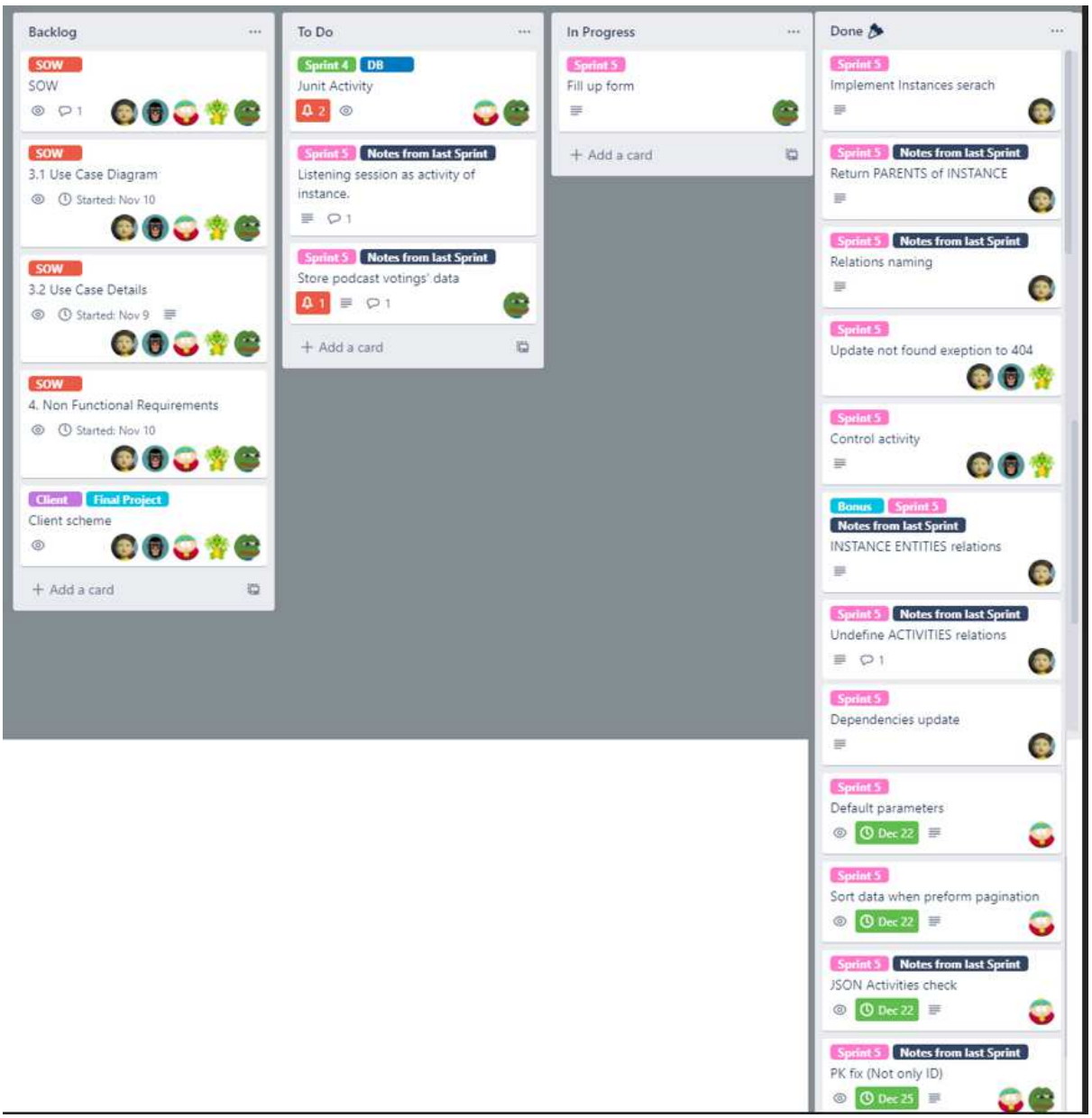
Sprint 5

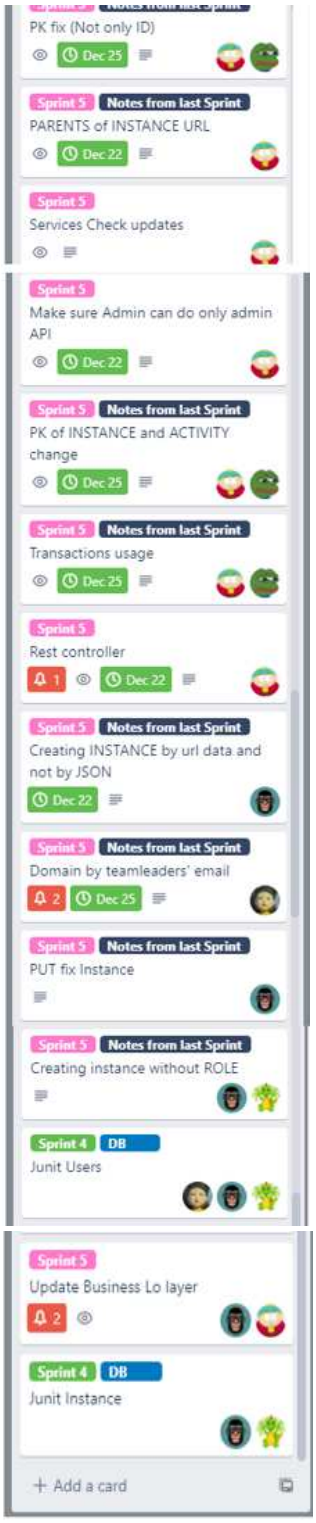
Start of the sprint - 8.12.21 :




Creating instance without ROLE
PUT fix
PARENTS of INSTANCE URL
Creating INSTANCE by url data and not by JSON
Return PARENTS of INSTANCE
Relations naming
INSTANCE ENTITIES relations
Default parameters
Undefine ACTIVITIES relat ons
Store podcast votings' data
Domain by teamleaders' email
INSTANCE Notes
PK of INSTANCE and ACTIVITY change
Listening session as activity of instance

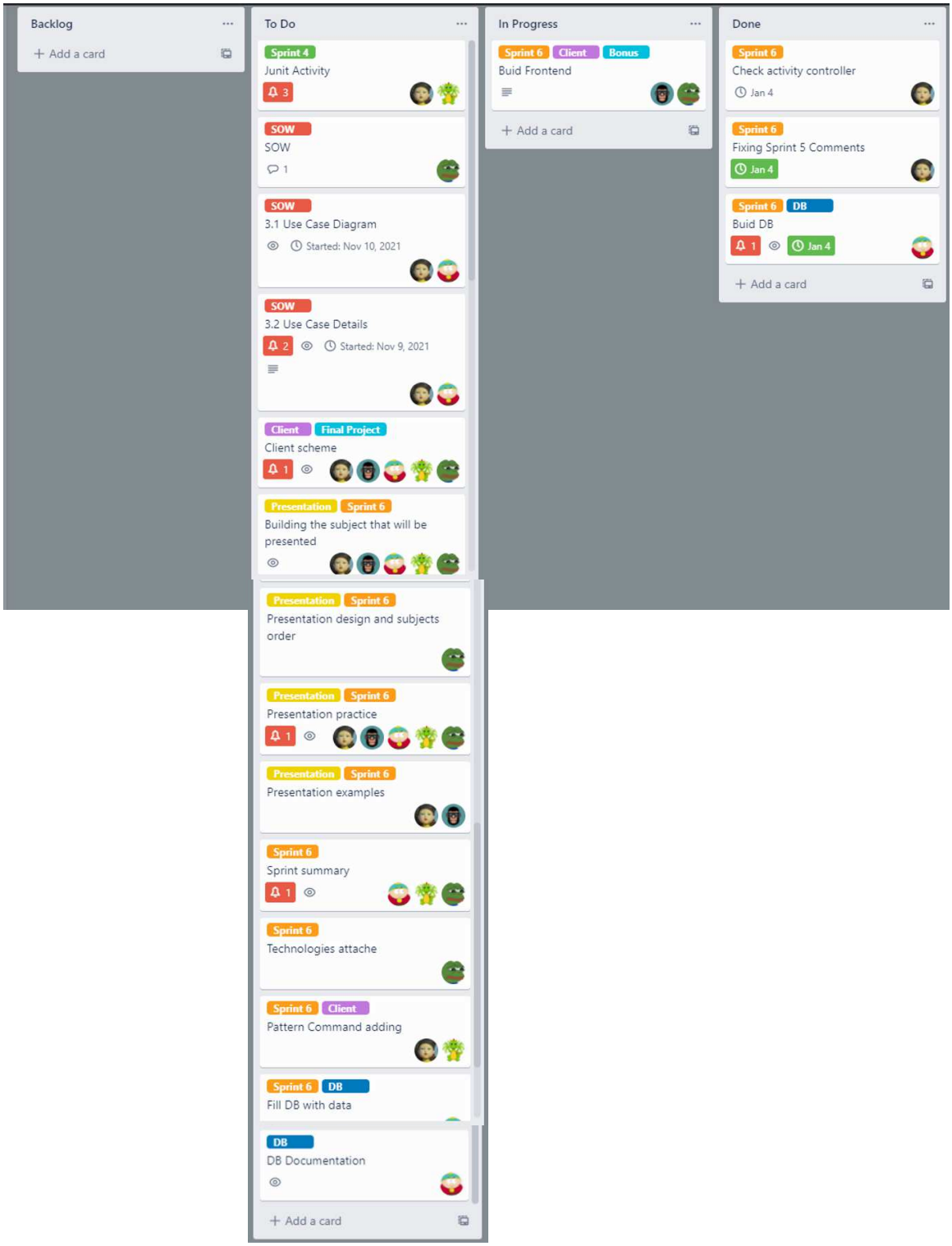
End of the sprint - 21.12.21:



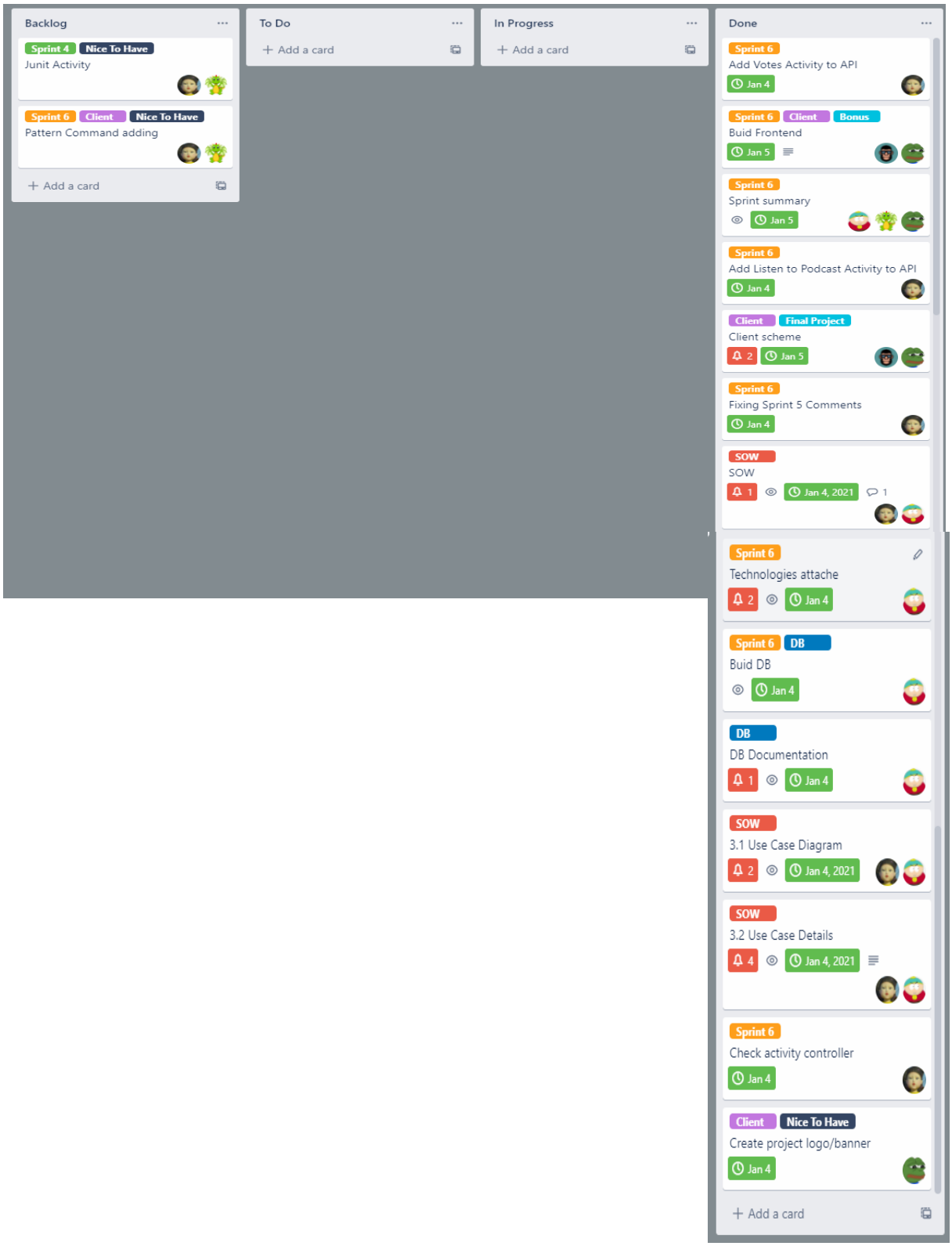

PK fix (Not only ID)
Dec 25
Sprint 5
Notes from last Sprint
PARENTS of INSTANCE URL
Dec 22
Sprint 5
Services Check updates
Sprint 5
Make sure Admin can do only admin API
Dec 22
Sprint 5
Notes from last Sprint
PK of INSTANCE and ACTIVITY change
Dec 25
Sprint 5
Notes from last Sprint
Transactions usage
Dec 25
Sprint 5
Rest controller
1
Dec 22
Sprint 5
Notes from last Sprint
Creating INSTANCE by url data and not by JSON
Dec 22
Sprint 5
Notes from last Sprint
Domain by teamleaders' email
2
Dec 25
Sprint 5
Notes from last Sprint
PUT fix Instance
Sprint 5
Notes from last Sprint
Creating instance without ROLE
Sprint 4
DB
Junit Users
Sprint 5
Update Business Lo layer
2
Sprint 4
DB
Junit Instance
+ Add a card

Sprint 6

Start of the sprint - 22.12.21 :



End of the sprint - 04.01.22:



Project in Integrative Software Engineering.
Sprint-6.

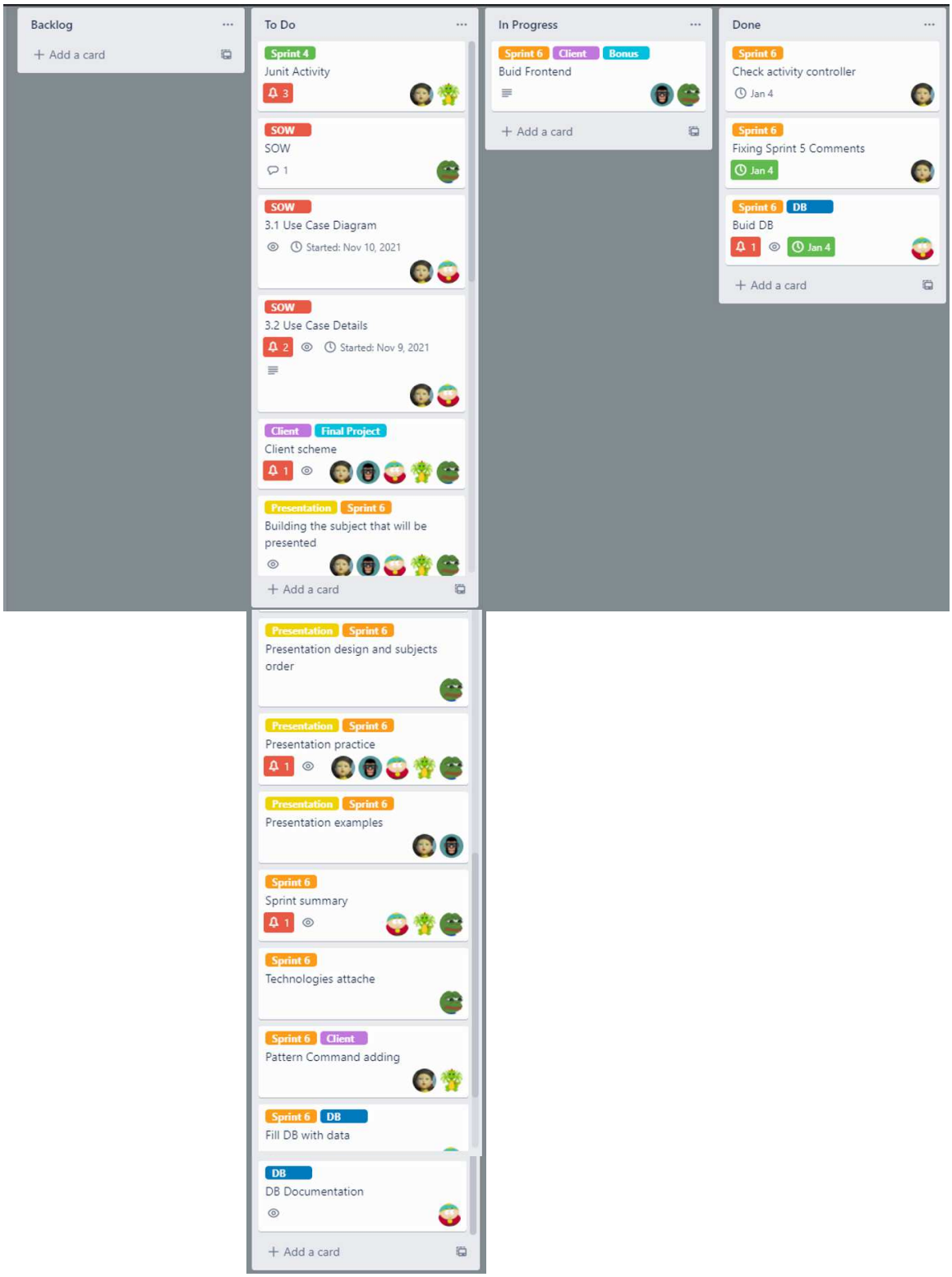
Date of submission: 05/01/22.
Course name: Integrative Software Engineering.
Course code: 10143.
Lecturer: Mr. Eisenstein Eyal.
Presenters: Lior Mitrany, Omer Ratsaby, Daniel Haimov, Shlomi Dori, Stav Rabinovich

List of Students:

Name	ID	Role	Avatar
Omer Ratsaby	312274780	DBA Team	
Stav Rabinovich	208661090	Scrum Master UI/UX Designer Team	
Lior Mitrany	205478258	Team Leader QA Engineer Team	
Daniel Haimov	207949058	Technical Writer Devops Team	
Shlomi Dori	316584044	Product Owner Team	

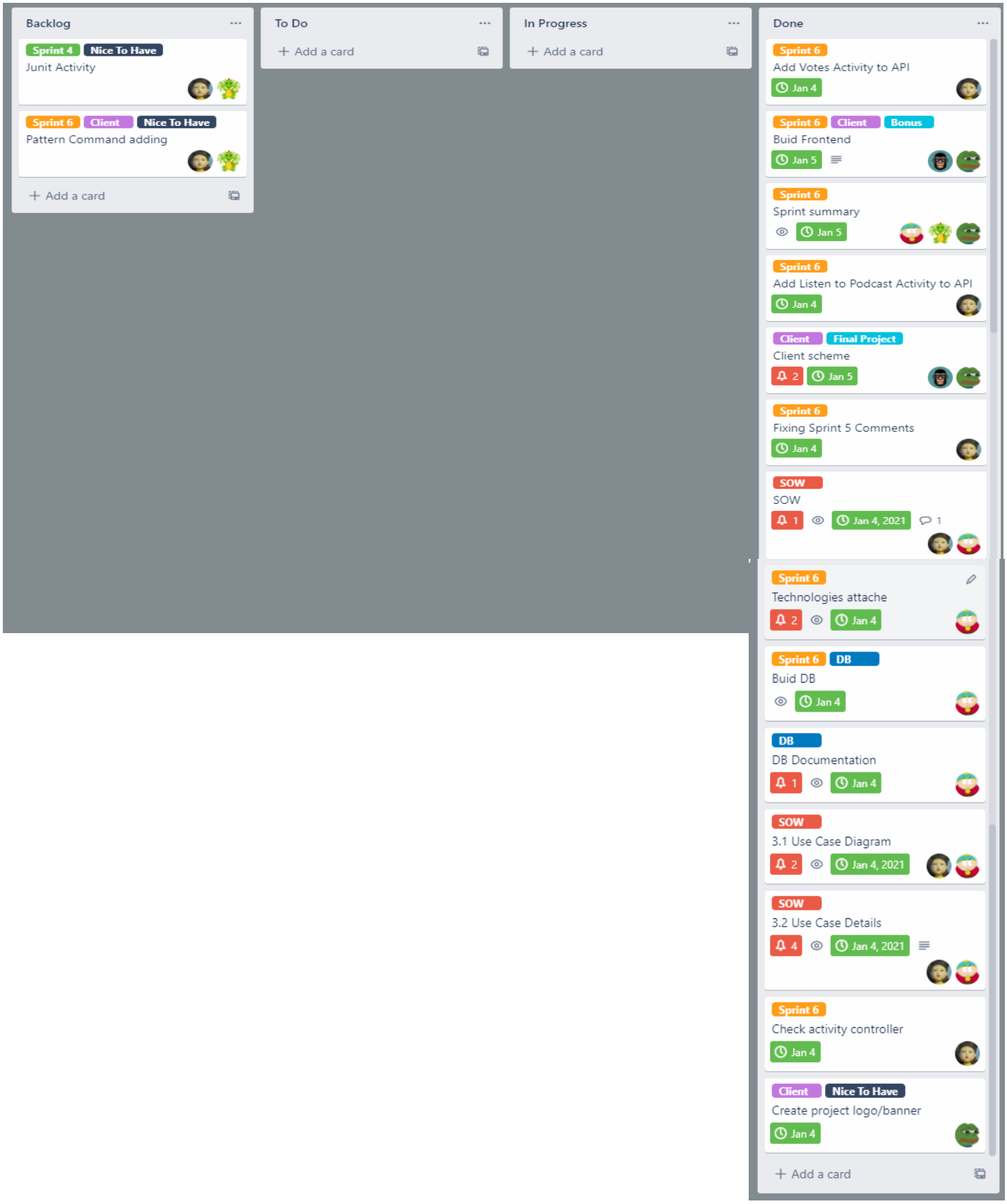
Kanban Board:

Start of the sprint - 22.12.21 :



Kanban Board:

End of the sprint - 04.01.22:



General Summary of Work:

What went well for the team and should be continued on the next phases of work?
-- We decided to continue with dividing the last sprint's corrections and new sprint's missions into tasks and sectioned each task to both couples individuals and individuals, based on their knowledge, the size of the task, and by the chemistry of the team members.

In this sprint, we met almost every day in order to get the best results. The members of the team Were all determined to do their best and get the project done.

What problems did the team encounter through this phase of work
-- The absence of our team leader (Army's duty), had a little impact on the communication and And the usual work schedules (although he did his best to contribute).
As the semester goes on and each course that we participate in requires more time and effort, and in addition to that, some of our team members are going through work appliance processes, we've found it much more challenging to schedule appointments.
We have overcome the mentioned challenges by defining more accurately the tasks on the Kanban board.

Why did we not complete all planned work
-- We did.

Client Cheat Sheet

Create User:

path = "/iob/users",

method = POST.

Body = {

"email":"user@demo.com",

"role":"ROLE",

"username":"Demo User",

"avatar":"XXX"

}

response =

{

"userId":{

"domain":"2022a.demo",

"email":"user@demo.com"

},

"role":"ROLE",

"username":"Demo User",

"avatar":"XXX"

}

.then(response):

path = "/iob/instances/{userDomain}/{userEmail}"

method = POST

Body = {

"type":"USER",

"name":"{userEmail}",

"active":true,

"createdBy":{

"userId":{

"domain":"{userDomain}",

"email":"{userEmail}"

}

},

"instanceAttributes":{

"Genre": ["Genre0","Genre1"]

}

}

Login User:

path = "/iob/users/login/{userDomain}/{userEmail}",

method = GET

response =


```
{
	"userId":{
		"domain":"2022a.demo",
		"email":"user@demo.com"
	},
	"role":"PLAYER",
	"username":"Demo User",
	"avatar":"J"
}
```

Create Podcast:

path = "/iob/instances/{userDomain}/{userEmail}"

method = POST

Body = {

"type":"PODCAST",

"name":"{PodcastName}",

"active":true,

"createdBy":{

"userId":{

"domain":"{userDomain}",

"email":"{userEmail}"

}

},

"instanceAttributes":{

"Author":"XXX",

“Genre”: [“Genre0”, “Genre1”],

"URL" : "http://"

}

}

response =

instanceBoundary

.then(response):

path = "/iob/activities"

method = POST

Body = {

"type":"PODCAST",

"instance":{

"instanceId":{

"domain":"{podcastDomain}",

"id":"{podcastId}"

}

},

"invokedBy":{

"userId":{

"domain":"{appName}",

"email":"{ONLY - PLAYER email}"

}

},

"activityAttributes":{

"upvotes":0,

"downvotes":0,

"listeners":0

}

}

Vote Podcast:

path = "/iob/activities/vote"

method = POST

Body = {

```
"activityId":{
    "domain":"{appName}",
    "id":"{activityId}"
},
"instance":{
    "instanceId":{
        "domain":"{appName}",
        "id":"{podcastId}"
    }
},
"activityAttributes":{
    "command":”upvotes” or “downvotes”
}
```

}

Listen Podcast:

path = "/iob/activities/listen"

method = POST

Body = {

```
"activityId":{
    "domain":"{appName}",
    "id":"{activityId}"
},
"instance":{
    "instanceId":{
        "domain":"{appName}",
        "id":"{podcastId}"
    }
},
"activityAttributes":{
    "command":”listeners””
}
```

}

Get X Podcasts from page Y:

path="/iob/instances/{userDomain}/{userEmail}/search/byType/PODCAST?size={X}&page={Y}"

method = GET