



Learner's Academy

DELL FSD - Learner's Academy Project

By

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Problem Statement:

Learner's Academy is a school that has an online management system. The system keeps track of its classes, subjects, students, and teachers. It has a back-office application, The administrator can:

- Set up a master list of all the subjects for all the classes
 - Set up a master list of all the teachers
 - Set up a master list of all the classes
 - Assign classes for subjects from the master list
 - Assign teachers to a class for a subject (A teacher can be assigned to different classes for different subjects)
 - Get a master list of students (Each student must be assigned to a single class)
- There will be an option to view a Class Report which will show all the information about the class, such as the list of students, subjects, and teachers

The goal of the company is to deliver a high-end quality product as early as possible.

Sprints and the User Stories:

Sprint-1: (One week)

- **User Story-1 :** As an Administrator, I want to have an option to create Students, so that i can set up a master list of Students
- **User Story-2 :** As an Administrator, I want to have an option to create Subjects, so that i can set up a master list of Subjects
- **User Story-3 :** As an Administrator, I want to have an option to create Classes, so that i can set up a master list of Classes
- **User Story-4 :** As an Administrator, I want to have an option to create Teachers, so that i can set up a master list of Teachers
- **User Story-5 :** As an Administrator, I want to have an option to view Students, so that i can view a Student by Id and also a list of Students.
- **User Story-6 :** As an Administrator, I want to have an option to view Subjects, so that i can view a Subject by Id and also a list of Subjects.
- **User Story-7 :** As an Administrator, I want to have an option to view Classes, so that i can view a Class by Id and also a list of Classes.
- **User Story-8 :** As an Administrator, I want to have an option to view Teachers, so that i can view a Teacher by Id and also a list of Teacher.
- **User Story-9 :** As an Administrator, I want to have an option to update Students, so that i can modify a Student by Id.



- **User Story-10** : As an Administrator, I want to have an option to update Subjects, so that i can modify a Subject by Id.
- **User Story-11** : As an Administrator, I want to have an option to update Classes, so that i can modify a Class by Id.
- **User Story-12** : As an Administrator, I want to have an option to update Teachers, so that i can modify a Teacher by Id.

Sprint-2:(one week)

- **User Story-1** : As an Administrator, I want to have an option to delete Students, so that i can remove Students whenever they are off-boarded.
- **User Story-2** : As an Administrator, I want to have an option to delete Subjects, so that i can remove Subjects whenever they are not required.
- **User Story-3** : As an Administrator, I want to have an option to delete Classes, so that i can remove Classes whenever they are not required.
- **User Story-4** : As an Administrator, I want to have an option to delete Teachers, so that i can remove Teachers whenever they are off-boarded.
- **User Story-5** : As an Administrator, I want to have an option to assign Students to Classes, so that i can assign Students to Classes whenever the students are promoted or on-boarded.
- **User Story-6** : As an Administrator, I want to have an option to assign Subjects to Classes, so that i can have subjects assigned to Class.
- **User Story-7** : As an Administrator, I want to have an option to assign Subjects to Teachers, so that i can assign Teachers to Subjects.
- **User Story-8** : As an Administrator, I want to have an option to assign Teachers to Classes, so that i can assign Teachers to Classes.:

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Jira User Story – Agile Scrum:

✎ Add epic / 🟢 DFLA-13

👁 1 🔗 ⋮ ✕

As an Administrator, I want to have an option to delete Students, so that i can remove Students whenever they are off-boarded.

📎 Attach 🧩 Add a child issue 🔗 Link issue ⌵ ⋮

Description

Add a description...

Activity

Show: **Comments** History



Add a comment...

Pro tip: press **M** to comment

To Do ▾

IN PROGRESS

DONE

Labels

None

Sprint

DFLA Sprint 2

Story point estimate

None

Reporter



Prasanth Chandrasekar

Jira Sprint– Agile Scrum:

Jira Software

Your work

Projects ▾ Filters ▾ Dashboards ▾ People Apps ▾ **Create**

DELL FSD Learner's...
Next-gen software project

- Roadmap
- Backlog
- Board**
- Pages
- Add item
- Project settings

Projects / DELL FSD Learner's Academy

DFLA Sprint 2

to fulfill the requirement from the administrator

TO DO 7

DFLA-15

As an Administrator, I want to have an option to delete Classes, so that i can remove Classes whenever they are not required.

DFLA-16

As an Administrator, I want to have an option to delete Teachers, so that i can remove Teachers whenever they are off-boarded.

DFLA-17

As an Administrator, I want to have an option to assign Students to Classes, so that i can assign Students to Classes whenever the students are promoted or on-boarded.

DFLA-18

As an Administrator, I want to have an option to assign Subjects to Classes, so that i can have subjects assigned to Class.

DFLA-18

As an Administrator, I want to have an option to assign Subjects to Teachers, so that i can assign Teachers to Subjects.

DFLA-19

IN PROGRESS

DONE 1 ✓

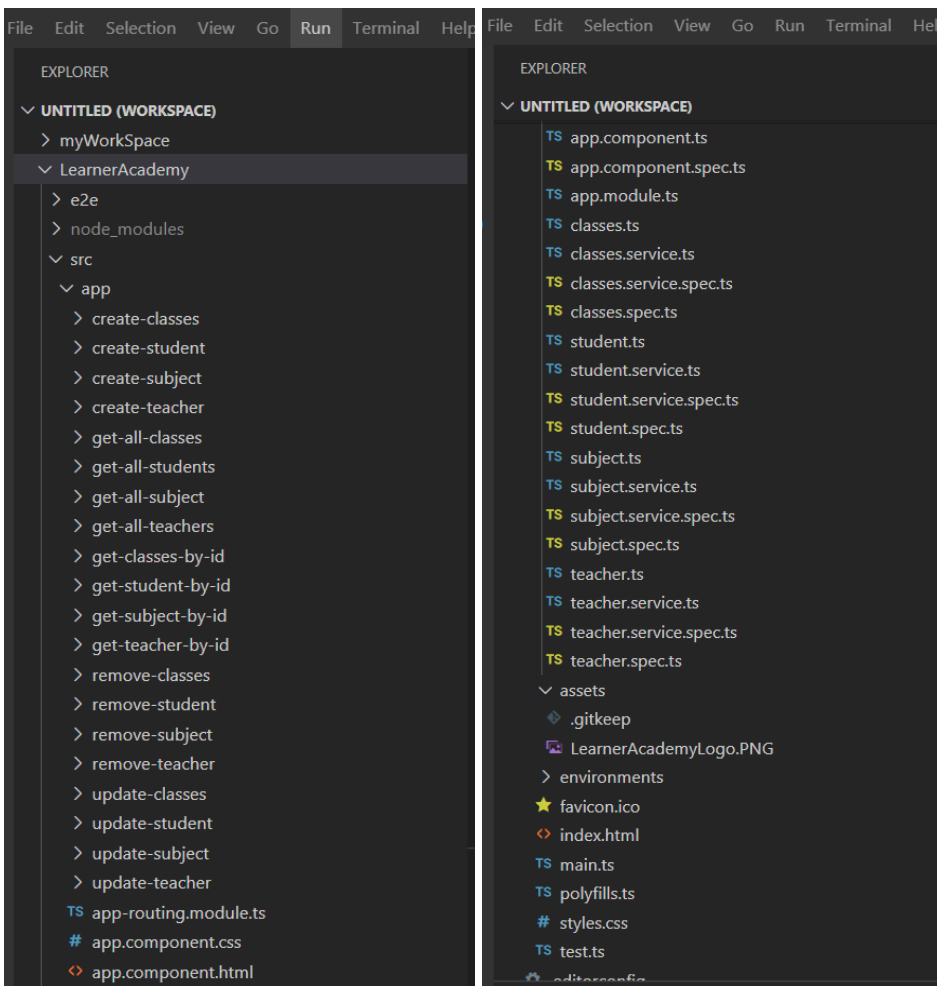
You're in a next-gen project
Give feedback Learn more



Tools used in the Project:

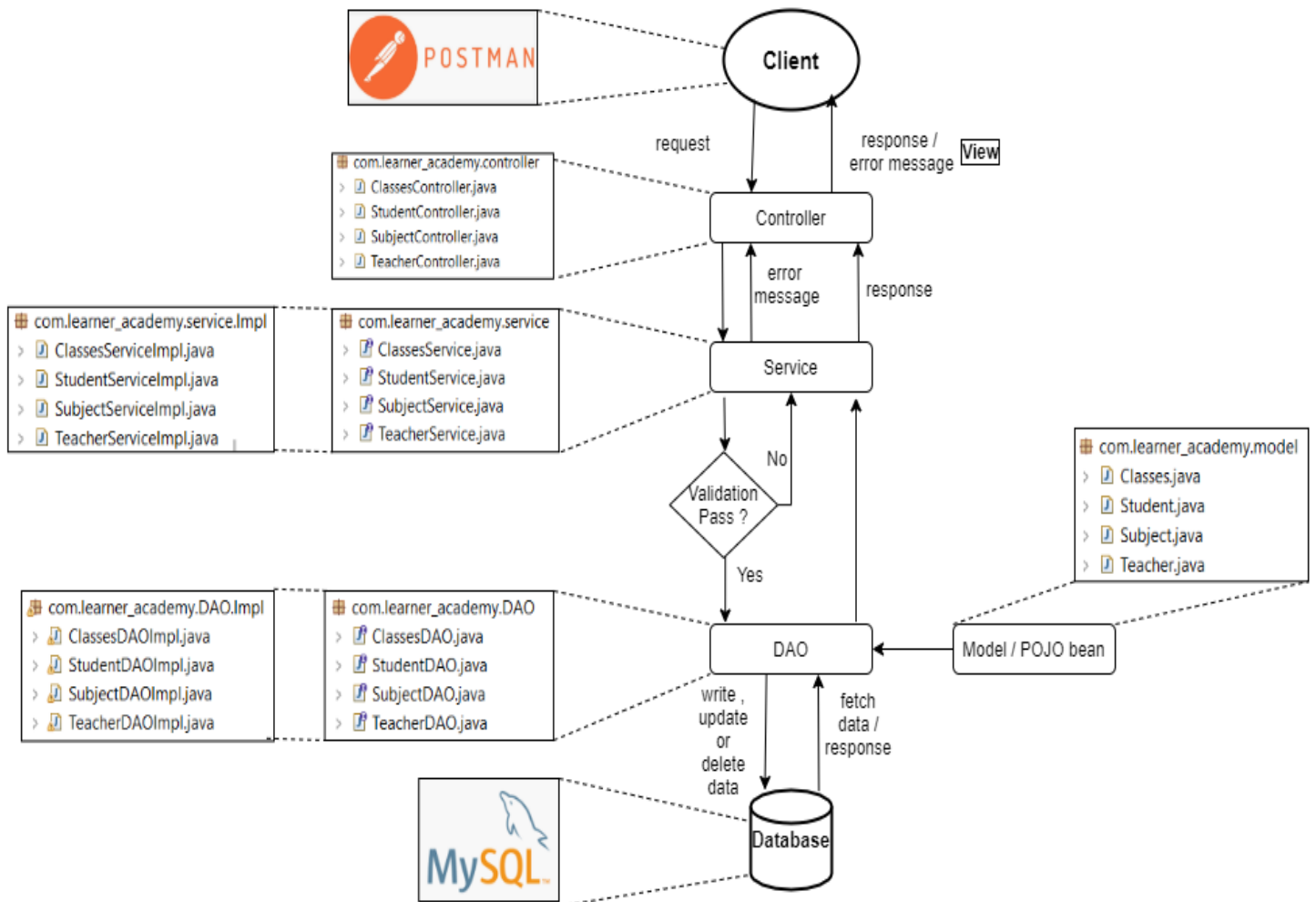
Programming Language and related	Java, Hibernate, Jersey, Angular, TypeScript, html, css, bootstrap
IDE	Eclipse, Microsoft Visual Code
SQL	MySQL
Version Control System	Git & GitHub
Software Development Methodology	Agile - Scrum - Jira

Hierarchy of codes developed:



Application Architecture and Flow Chart (Back-End):

In Front-End architecture, the Postman Client is replaced with a Browser.

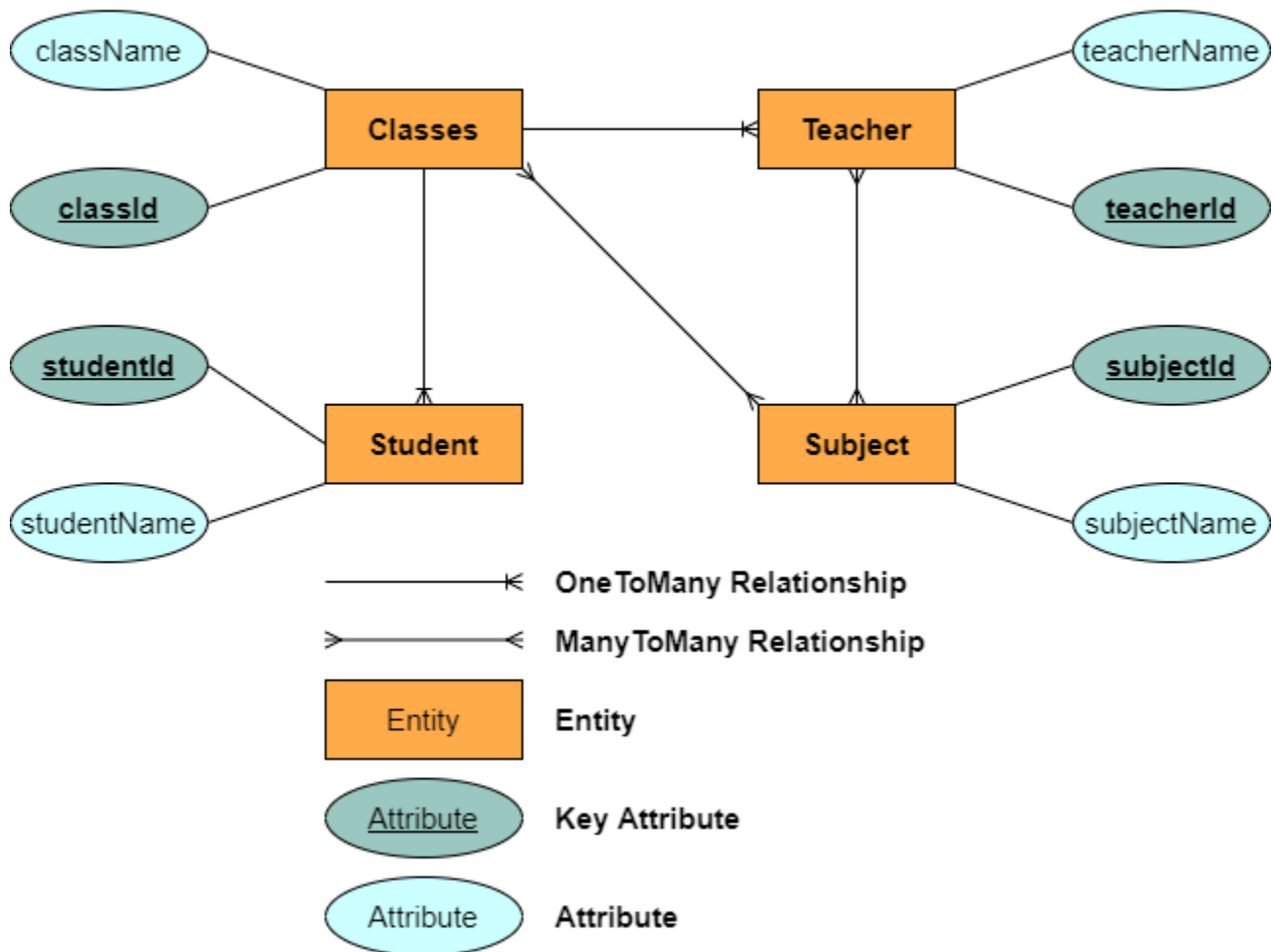




Exception Handling:

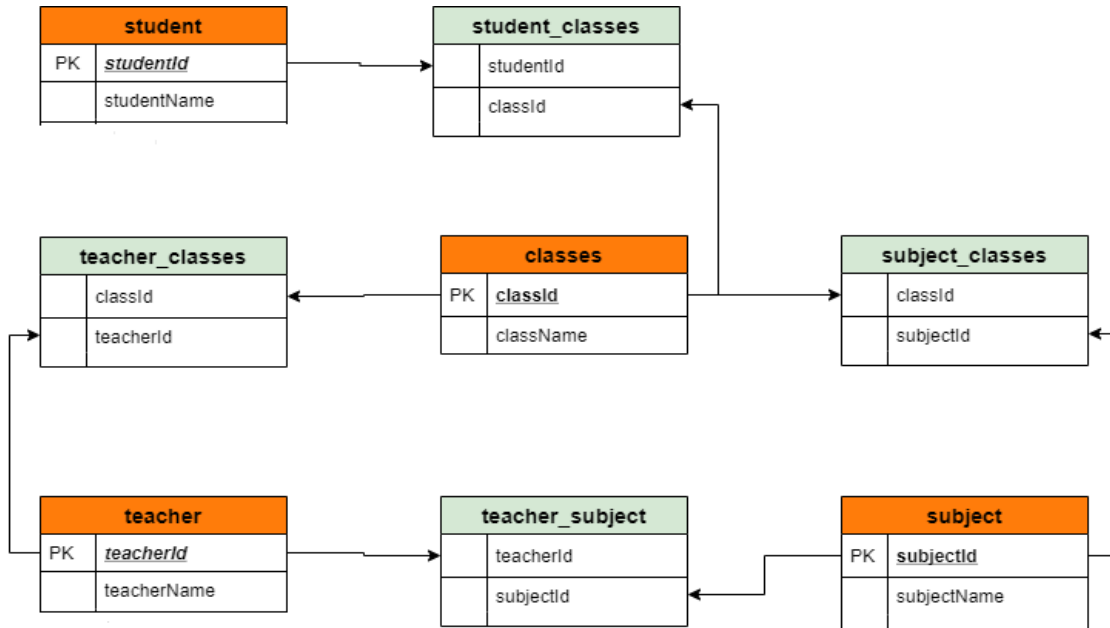
Some of the exceptions and errors are handled, so that the application won't close, exit or throw an exception.

Entity Relationship Diagram







Entity and Tables:



Database Tables and Mapping

Legend	
	Entity & Table
	Table

Tables created in Database:

```
mysql> show tables;
+-----+
| Tables_in_db1 |
+-----+
| classes        |
| student        |
| student_classes|
| subject        |
| subject_classes|
| teacher        |
| teacher_classes|
| teacher_subject|
+-----+
8 rows in set (0.00 sec)
```




Project Requirement:


Project Requirement	
S.No.	Requirement
1	Set up a master list of all the subjects
2	Set up a master list of all the teachers
3	Set up a master list of all the classes
4	Assign subject for class
5	Assign teacher to subject
6	Get a master list of students
7	An option to view a Class Report which will show all the information about the class, such as the list of students, subjects, and teachers


Screenshots taken while executing project requirements and their verification:


1) Set up a master list of all the subjects:




Learner's Academy

 Student

 Subject


 Teacher





 Classes

Subjects List

subject Id	subject Name
1	subj1
2	physics
3	chemistry
4	Maths
5	Mathematics
6	Astrology
7	
8	
9	
10	

**2) Set up a master list of all the teachers:**



Learner's Academy





 Student
 Subject
 Teacher
 Classes

Teachers List

Teacher Id	Teacher Name
1	Starc
2	Statham
3	teac3
5	
6	
7	
9	
10	
11	Malar
12	Jessi

3) Set up a master list of all the classes:


Learner's Academy

 Student
 Subject
 Teacher
 Classes

Class List

Class Id	Class Name	Student Id	Student Name	Subject Id	Subject Name	Teacher Id	Teacher Name
1	class1	1	Jason	1	subj1	1	Starc
		2	Fox	2	physics		
		3	Sam	3	chemistry		
				6	Astrology		
9	Class2						

4) Assign subject for class:

Learner's Academy

class Id	class Name	Student Id	Student Name	Subject Id	Subject Name	Teacher Id	Teacher Name
1	class1	1	Jason	1	subj1	1	Starc
		2	Fox	2	physics		
		3	Sam	3	chemistry		
				6	Astrology		
9	Class2			2	physics	2	Satham

Update Class

class Id	class Name
Student Id	Student Name
Subject Id	Subject Name
Teacher Id	Teacher Name
Update Class	

5) Assign teacher to subject:

Learner's Academy

class Id	class Name	Student Id	Student Name	Subject Id	Subject Name	Teacher Id	Teacher Name
1	class1	1	Jason	1	subj1	1	Starc
		2	Fox	2	physics		
		3	Sam	3	chemistry		
				6	Astrology		
9	Class2			2	physics	2	Satham

Update Class

class Id	class Name
Student Id	Student Name
Subject Id	Subject Name
Teacher Id	Teacher Name
Update Class	

6) Get a master list of students

Learner's Academy

Student
 Subject
 Teacher
 Classes

Students List

studentId	studentName
1	Jason
2	Fox
3	Sam

7) An option to view a Class Report which will show all the information about the class, such as the list of students, subjects, and teachers:

Learner's Academy

Student
 Subject
 Teacher
 Classes

create Class
get All Classes
get Class By Id
remove Class
update Class

Class List

Class Id	Class Name	Student Id	Student Name	Subject Id	Subject Name	Teacher Id	Teacher Name
1	class1	1	Jason	1	subj1	1	Starc
		2	Fox	2	physics		
		3	Sam	3	chemistry		
				6	Astrology		
9	Class2			2	physics	2	Statham

Git Screenshots:

```
chandp23@INGSCHANDP23L1C MINGW64 ~/Desktop/_/Full Stack/Angularworkspace/LearnerAcademy (master)
$ git log --oneline
aed5d3f (HEAD -> master, origin/master) everything works- commit before submission
3ac1a71 all methods working except update of classes
7ca478e all methods works except - remove and update not works for classes,teacher and subject - also CORS error
036cdea all five methods of Student works
ece3281 createStudent, getAllStudents, getStudentById and removeStudent works
ee3a791 createStudent, getAllStudents, getStudentById and removeStudent works
b04a837 getAllStudents, createStudent and getStudentById works
498a485 createStudent and getAllStudents works
d28b918 createStudent and getAllStudents works
85bfb50 My First Commit
033174a initial commit
```

GitHub Screenshot:

PrasanthChand / LearnerAcademyFrontEnd


<> Code ! Issues 🔗 Pull requests ⚙️ Actions 📁 Projects 📖 Wiki ⚠️ Security 📈 Insights ⚙️ Settings

Branch: master ▾

Go to file

Add file ▾

Code ▾

	Prasanth committed aed5d3f 20 minutes ago ...	🕒 11 commits 🔗 1 branch 🏷️ 0 tags
📁 e2e	initial commit	21 days ago
📁 src	everything works- commit before submission	20 minutes ago
📄 .editorconfig	initial commit	21 days ago
📄 .gitignore	initial commit	21 days ago
📄 README.md	initial commit	21 days ago
📄 angular.json	initial commit	21 days ago
📄 browserslist	initial commit	21 days ago
📄 cptestfile.txt	My First Commit	19 days ago
📄 debug.log	createStudent and getAllStudents works	17 days ago
📄 karma.conf.js	initial commit	21 days ago
📄 package-lock.json	initial commit	21 days ago



GitHub Repository:

All the project related files are uploaded to the below GitHub repository.

Note: *The data in the database might be different from the screenshots, as few data were modified for testing purpose after taking screenshot. This project specification document is uploaded to below GitHub Repository in both .doc and .pdf extensions.*

Front End related codes : <https://github.com/PrasanthChand/LearnerAcademyFrontEnd>

Back End related codes : <https://github.com/PrasanthChand/LearnerAcademy>