Domain Model Video Presentation Link

https://youtu.be/Ndw7uKuLSfA

FDM Trainer+

Group 30

FDM Trainer+ solves

Scheduling

Coordination

Data Protection

Motivation behind Trainer+

Scheduling:

- Competitive advantage
- Increased earnings
- Happier owners

Coordination:

- Improved efficiency
- Encourages teamwork
- Effective use of resources

Data Protection:

- Reduced legal complications
- Increased safety
- Enhanced public relations

How Trainer+ solves the problem

- Efficient scheduling algorithms that aid in the scheduling process
- Use of MySQL for database in keeping compliant with data protection legislation
- Calendar syncing function
  - Efficient course scheduling
  - Cope with timezone issues
  - Alerts trainers and trainees of upcoming scheduled course
- Profile function
  - Clear and detailed user information
  - Easy to search, edit and delete profiles

Personas

- Academy Scheduling Team
  - Course Staff
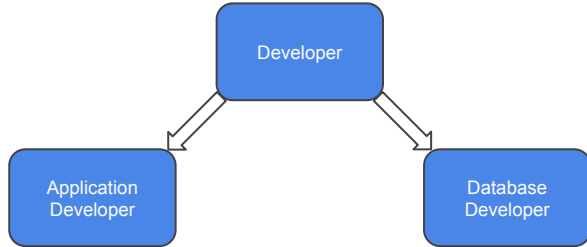 - Assign Staff
- Trainer
- Trainee

Personas

- Administrator
- Developer
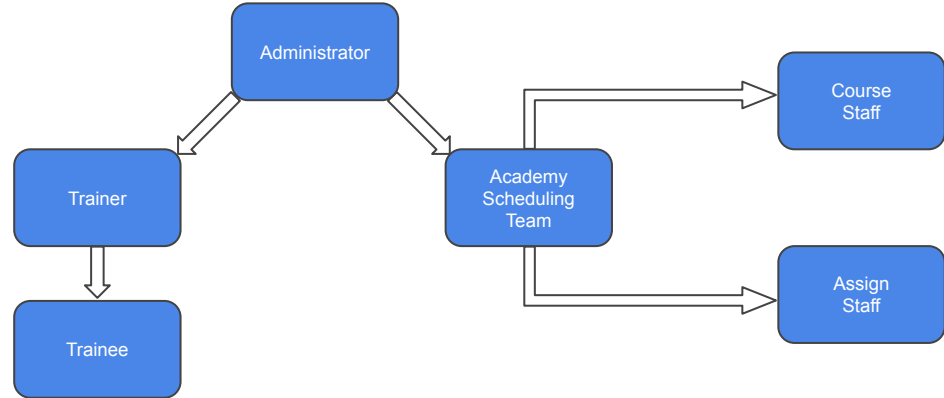 - Application Developer
  - Database Developer

Personas diagram

Back end

Front end

Environment - Device Platform

Trainer+ will be available on **desktop** devices for the following reasons:

- **Connectivity**
  - Desktop applications do not require the internet.
  - Offline service available
  - No interruptions
- **Effectiveness** of users performing tasks.
  - Complex tasks on a big screen are easier & faster to complete.
  - App interfaces on small screens "confuse the user".

(Momook, 2018), (Gaille, 2019)

(Moreno et al, 2015)

Environment - OS Platform

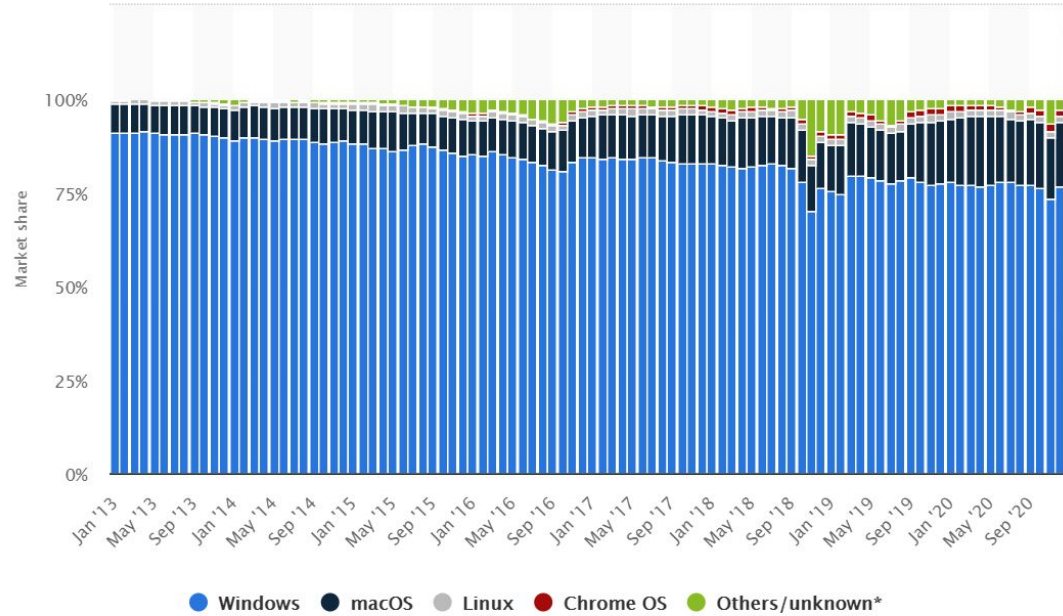Trainer+ will run on **Windows 10** for the following reasons:

- **Accessibility**
  - Windows 10 is the "dominating desktop operating system (OS) worldwide".
  - FDM Trainer+ will be able to **reach out to a wider audience**.

(Liu, 2021)

Global market share held by operating systems for desktop PCs, from January 2013 to December 2020

(Liu, 2021)

Environment - OS Platform

Trainer+ will run on **Windows 10** for the following reasons:

- **Future Proof**
  - "Windows 10 will be the **last version of Windows**" - Jerry Nixon (Microsoft development executive)
  - Code does not need to be changed.
  - **Saves time & money** for FDM.
  - Trainer+ will run on the latest OS.

(Kelly, 2016)

Java (Programming Language)

- **Compatibility**
  - Can run on Windows, Linux & OS X (top 3 global operating systems).
  - Increases accessibility to desktop users.
  - FDM can branch out to Linux or OS X, **without extra development costs**.
- **Cheap & economical to maintain**
  - Up to date with the latest features on the market.
  - Fix any errors within the application.
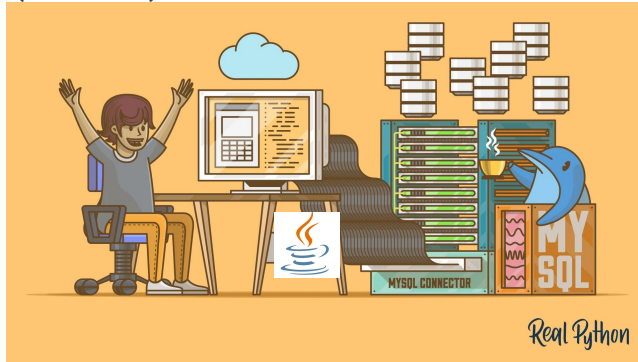 - **Improves user experience** based on feedback.

(Oracle.com, n.d.), (Liu, 2021)

(Chomko, 2012), (TechVidvan, 2021)

MySQL (Database)

- Allows Trainer+ to store data, create queries & manage records.
- All data is protected by a security layer.
- Allows FDM to comply with the General Data Protection Regulation (GDPR) laws.
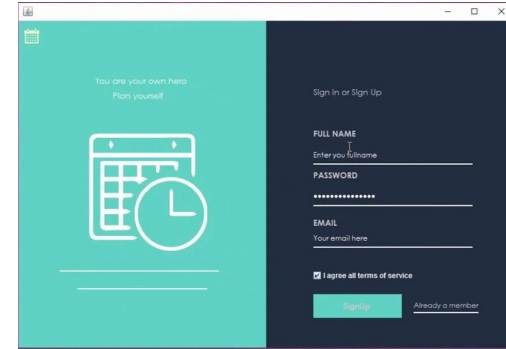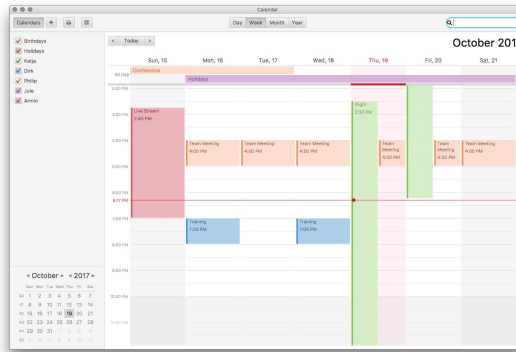
(javatpoint, n.d.)

JavaFX (GUI)

- Supports the Model View Controller (MVC) design pattern.
- Separate your work from the logic and the design of the application.
- Easier to manage, read & identify any mistakes in your code during development.
- JavaFX is integrated with Java & it is free.

(EDUCBA, 2021),
(Docs.oracle.com, n.d.),
(Müller, 2013)

Competing Software

- The table below summarizes our findings:

Metric	Ease of Use	Customer Service	Features	Value for Money
Arlo	4.6	4.7	4.5	4.5
Oasis	4.1	4.3	4.1	-
Degreed	4.3	4.3	4	4.3

SUMMARY MIND MAP