OOP Team report (3rd stage)

Team: 404

Lukas Šerelis and Karolis Zabulis
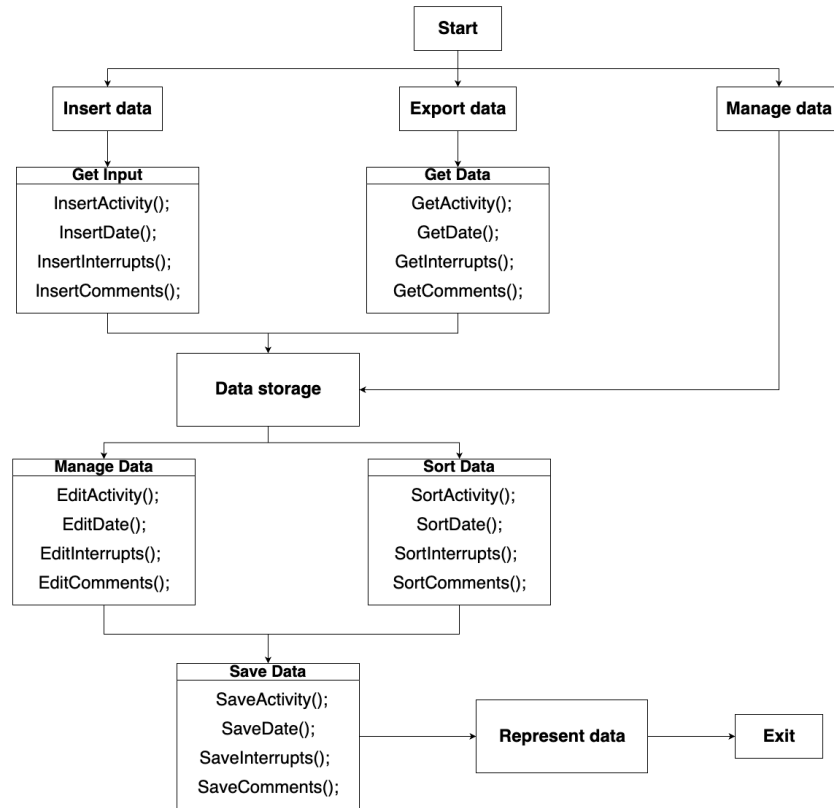
1.

TeamID	Member1	Member2	Team Description
404	Lukas Šerelis	Karolis Zabulis	Project by two first-year students from the Faculty of Mathematics and Informatics at Vilnius University for the Object-Oriented Programming course

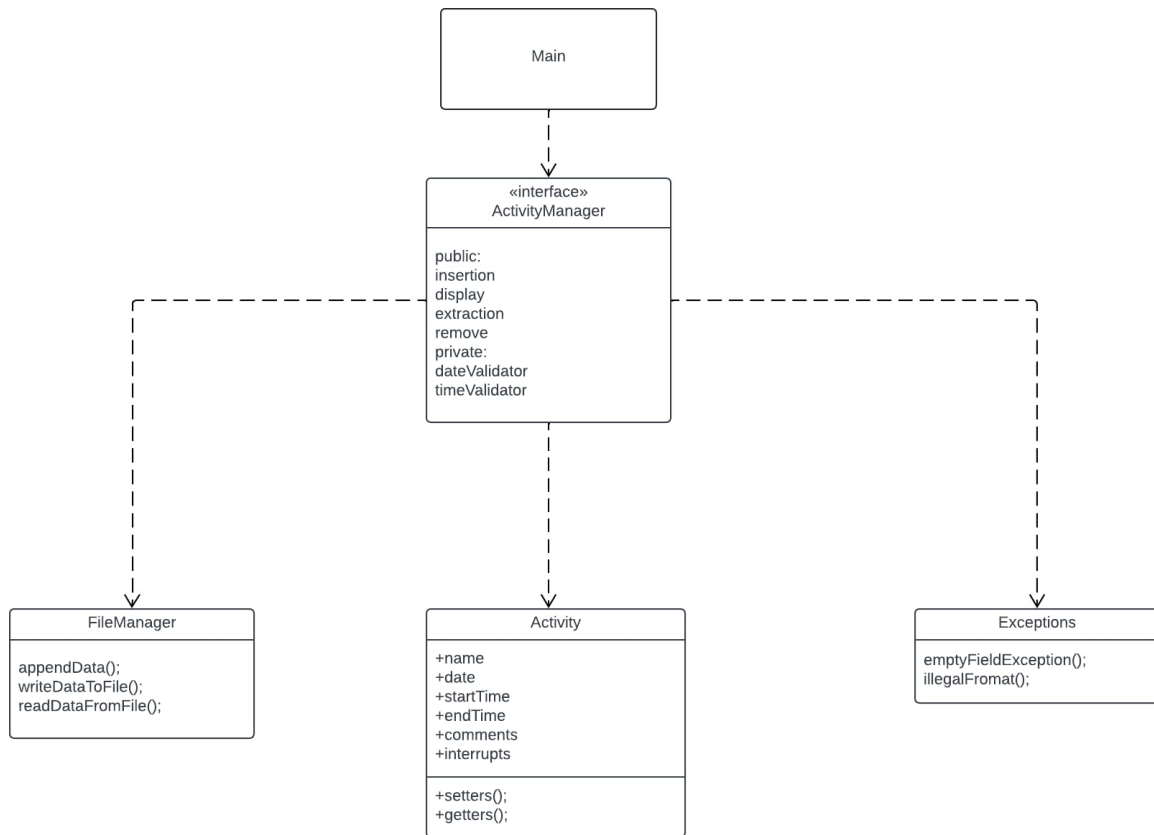| Architect	Builder	Critic	Designer	Exhibitor	Facilitator
Karolis Zabulis	Karolis Zabulis	Lukas Šerelis	Lukas Šerelis	Karolis Zabulis	Lukas Šerelis

Project	Project Description
Time Manager	A Java program that allows users to enter activities, dates, start and end times, interruptions, and comments. It represents and manages these entries effectively.

2.

Structure of the project diagram (1st stage)

```
                        ┌──────────┐
                        │  Start   │
                        └────┬─────┘
          ┌──────────────────┼──────────────────┐
          ▼                   ▼                   ▼
   ┌─────────────┐     ┌─────────────┐     ┌─────────────┐
   │ Insert data │     │ Export data │     │ Manage data │
   └──────┬──────┘     └──────┬──────┘     └──────┬──────┘
          ▼                   ▼                   │
   ┌─────────────┐     ┌─────────────┐            │
   │  Get Input  │     │  Get Data   │            │
   ├─────────────┤     ├─────────────┤            │
   │InsertActivity();│ │ GetActivity();│          │
   │ InsertDate();│    │  GetDate(); │            │
   │InsertInterrupts();││GetInterrupts();│         │
   │InsertComments();│ │GetComments();│           │
   └──────┬──────┘     └──────┬──────┘            │
          └──────────┬─────────┘                  │
                     ▼                            │
              ┌──────────────┐                    │
              │ Data storage │◄───────────────────┘
              └──────┬───────┘
          ┌───────────┴───────────┐
          ▼                       ▼
   ┌─────────────┐         ┌─────────────┐
   │ Manage Data │         │  Sort Data  │
   ├─────────────┤         ├─────────────┤
   │EditActivity();│       │SortActivity();│
   │ EditDate(); │         │ SortDate(); │
   │EditInterrupts();│     │SortInterrupts();│
   │EditComments();│       │SortComments();│
   └──────┬──────┘         └──────┬──────┘
          └───────────┬───────────┘
                      ▼
               ┌─────────────┐
               │  Save Data  │
               ├─────────────┤
               │SaveActivity();│      ┌──────────────┐      ┌────────┐
               │ SaveDate(); │─────►  │Represent data│ ───► │  Exit  │
               │SaveInterrupts();│    └──────────────┘      └────────┘
               │SaveComments();│
               └─────────────┘
```
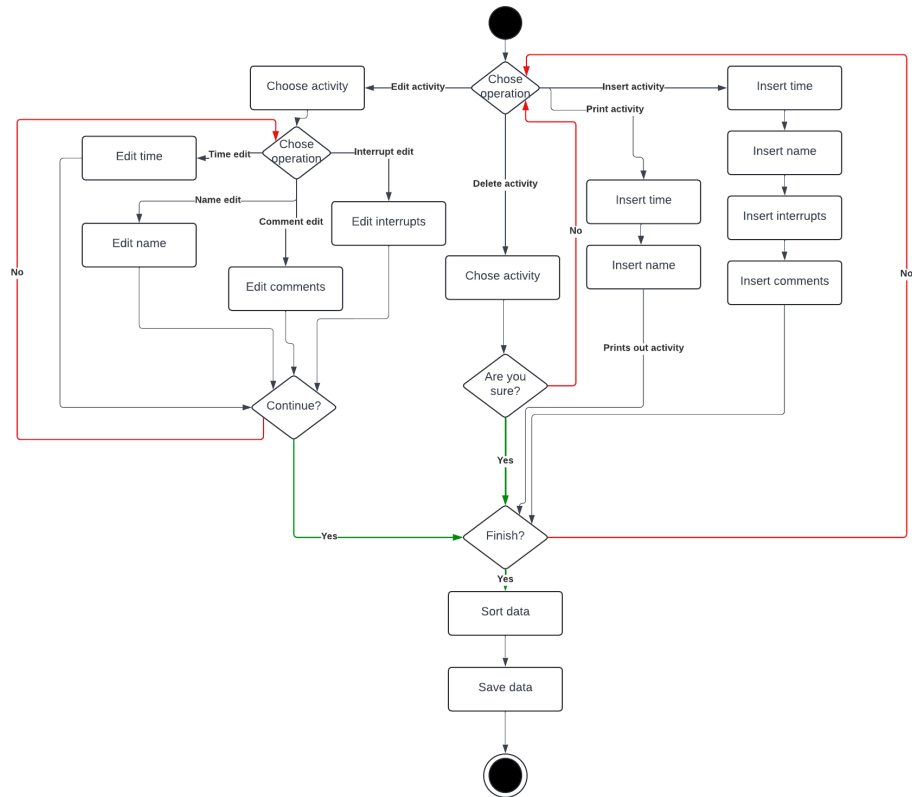
Structure of the project diagram (2nd stage)

```
                        ┌─────────────────┐
                        │      Main       │
                        └─────────────────┘
                                 ┆
                                 ▼
                   ┌───────────────────────────┐
                   │        «interface»        │
                   │      ActivityManager      │
                   ├───────────────────────────┤
                   │  public:                  │
                   │  insertion                │
                   │  display                  │
                   │  extraction               │
                   │  remove                   │
                   │  private:                 │
                   │  dateValidator            │
                   │  timeValidator            │
                   └───────────────────────────┘
```

FileManager

appendData();
writeDataToFile();
readDataFromFile();

Activity
+name +date +startTime +endTime +comments +interrupts
+setters(); +getters();

Exceptions
emptyFieldException(); illegalFromat();

3.

Use case diagram

4.

Activities diagram

5.

Available features

- Implemented GUI
- Insert activities
- Store activities
- Display stored activities
- Edit selected activity
- Delete selected activity
- Error handling

6.

Running instructions

For successful compilation of this program, you should first include the GSON library (a Java library created by Google used to convert Java Objects into their JSON representation and similar tasks) in your IDE. You can find the GSON file in the catalog called `lib` .

7.

Workloads

1st stage

	Lukas Šerelis	Karolis Zabulis
Architect	30 minutes	120 minutes
Builder	-	60 minutes
Critic	-	-
Designer	-	-
Exhibitor	120 minutes	30 minutes
Facilitator	30 minutes	-
Total	180 minutes	210 minutes

2nd stage

	Lukas Šerelis	Karolis Zabulis
Architect	15 minutes	30 minutes
Builder	180 minutes	420 minutes
Critic	15 minutes	-
Designer	180 minutes	-
Exhibitor	120 minutes	60 minutes
Facilitator	-	-
Total	510 minutes	510 minutes

3rd stage

	Lukas Šerelis	Karolis Zabulis
Architect	120 minutes	30 minutes
Builder	600 minutes	210 minutes
Critic	60 minutes	30 minutes
Designer	240 minutes	-
Exhibitor	120 minutes	90 minutes
Facilitator	60 minutes	-
Total	1 200 minutes	360 minutes

Total

	Lukas Šerelis	Karolis Zabulis
Architect	165 minutes	180 minutes
Builder	780 minutes	690 minutes
Critic	75 minutes	30 minutes
Designer	420 minutes	-
Exhibitor	360 minutes	180 minutes
Facilitator	90 minutes	-
Total	1 890 minutes	1 080 minutes

8.

Tools and technologies

- JDK
- Java Swing
- Git
- GSON
- Project is written in Java programming language
- Tested on Windows 11 64bit and macOS 14 arm64
- IDEs: Visual Studio Code and IntelliJ IDEA CE

9.

Source code

GitHub - lukrencijus/Java-Time-Manager: A Java program that allows users to enter activities, dates, start and end times, interruptions, and
A Java program that allows users to enter activities, dates, start and end times, interruptions, and comments. It represents and manages these entries effecti

⭘ https://github.com/lukrencijus/Java-Time-Manager

10.

Presentation

Exhibitor:

Presentation of project TimeManager by team 404

▶ https://youtu.be/AjFPwIbYIAQ
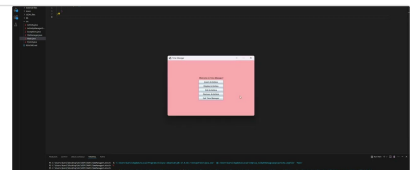
Lukas Šerelis:

Java Time Manager presentation by Lukas Šerelis

Presentation for a project for the Object-Oriented Programming course

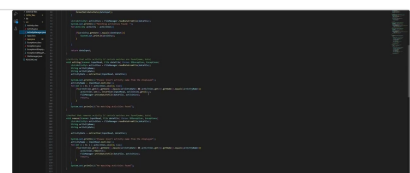▶ https://youtu.be/oEmaIfWXkhQ
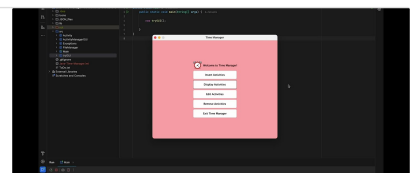
Karolis Zabulis:

Workflow of team 404 member Karolis Zabulis

▶ https://youtu.be/ZdNDFKuImpI

11.

Demonstration