

# Project Pitch

Team 99



# Team

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# Overview

For this project, we are going to design and implement the software for a [file archiver](#). This file archiver can be interacted with through a [command-line interface](#), which will support a handful of commands. The main user of this service will be an individual with the need to efficiently create a single archive representing multiple files.

The file archiver will adhere to the following functionalities:

- Compressing and decompressing archives with or without the usage of a password
- Listing the files contained in an archive
- Different compression methods
- Customisable configurations to be used for the creation of archives

# Feature 1

**Name:** Add files/folders to a new archive

**Description:**

This application should give the user the possibility to collect files and/or folders into a new archive by compressing them.

In order to use this feature, the user has to provide the name of the archive and the list of files and/or folders. Optionally the user can provide the type of archive they want.

The command line structure will be as follows: **create <name> <file list> [options]**, where the options field is an optional field that contains the flags and their corresponding info.

Whereby the implemented flags will be -f indicating the format preferred by the user, the -p flag indicates the password and the -c flag indicates the configurations.

Example:

create name file1 file2 folder1

**Champion:** Ana-Maria Musca

# Feature 2

**Name:** Extract contents

**Description:**

The system should allow users to extract all contents of an archive, into a user-defined folder.

If the user-defined folder does not already exist in the current directory, the system should create it.

If the user does not define a folder to extract into, the system should create a new folder with the same name as the archive.

The command line structure will be as follows: **extract <name> [directory name] [options]**, where the directory name field is optional, as well as the options field that contains the optional flags, and their corresponding key value.

Whereby the implemented flag is the -p flag indicates the password.

Examples:

```
extract arch1
```

```
extract arch1 dir1 -p arg1
```

In the second example the optional directory “dir1”, and an optional “-p” flag with its argument is used.

**Champion:** Bence Matajsz

# Feature 3

**Name:** Password-based encryption

**Description:**

The application should allow both password-based encryption and decryption.

The application should allow the user to provide a password to be used for the encryption and decryption of archives.

This feature should introduce the **-p <password>** option, allowing the user to create (feature 1), or extract (feature 2) archives using a particular password. If a password is not specified, the creation and extraction of archives is done without the use of one.

Examples:

```
create myzip file.txt -p password123
```

```
extract myzip -p password123
```

**Champion:** Thijmen Verlaan

# Feature 4

**Name:** Explore archive content without extracting

**Description:**

The application should allow the user to explore the archive content, this is done without extracting the archive. By exploration we mean the listing of the content of the archive. The user should not be able to open the files contained in the archive, so when the **list** command is used the system will only return a list of the filenames contained in the archive.

In order to use this feature the user has to use the **list** command in combination with name of the archive they want to list.

The command line structure will be as follows: **list <name>**, where the name should be the name of an archive of a valid format type. A valid format type is a format type which has been implemented in the system.

Examples:

list arch1

**Champion:** Yasin Karyagdi

# Feature 5

**Name:** Multiple compression formats

**Description:**

The application should allow multiple compression formats to be used when creating (feature 1), extracting (feature 2) or listing (feature 4) archives.

This feature should introduce the **-f <format>** option, allowing the user to create archives using a particular compression format. If no particular format is specified on creation, ZIP will be used.

For extraction, the file extension is used to determine the compression format to be used for decompression.

Example:

```
create myzip file.txt -f 7z
```

**Champion:** Thijmen Verlaan



# Feature 6

**Name:** Support of basic configurations for compression formats

**Description:**

The system shall allow the user to select the level (size) of compression when compressing a files.

The system shall allow the user to select the speed of compression when compressing files.

Levels of configurations: none, low, medium, high

The user can use the following flag to configure compression, where **<config>** is the either **size** or **speed** and **<level>** is the level of the configuration: **-c <config> <level>**

Example:

create myzip arg1.txt -c speed high

**Champion:** Bence Matajsz

# Time log

<b>Team number</b>		99		
<b>Member</b>	<b>Activity</b>	<b>Week number</b>	<b>Hours</b>	
Group	Discussed feature and project description	1	1	
Ana-Maria	Defined and Worked on Feature 1 & Slide	2	1	
Bence	Defined and Worked on Feature 2 & Slide	2	1	
Bence	Defined and Worked on Feature 6 & Slide	2	1	
Thijmen	Defined and Worked on Feature 3 & Slide	2	1	
Thijmen	Defined and Worked on Feature 5 & Slide	2	1	
Yasin	Defined and Worked on Feature 4 Slide	2	1	
Group	Discussed possibilities of implementing Features 5 and 6	2	1	
Group	Discussed the Team Contract features	2	0.5	
Ana-Maria	Wrote Team Contract features	2	0.5	
Thijmen	Wrote & Discussed Project Description	2	1	
Group	Discussed availability for future meetings	2	0.5	
Ana-Maria	Wrote the Time log	2	0.5	
		<b>TOTAL</b>	<b>11</b>	

# Signed contract

[Team Contract](#)