# Anforderungen an das Programm

The following data structure is given

General: The programme is to search for certain data and transfer the contents of this data in a certain form into an Excel file. The programme is to search through all folders each time. The programme is to be designed object-oriented.

In detail:

The programme gets a link as input in which there are files with the extension RVX. The following files are the project folders. The name of the folder should be assigned to the class of the project. There is also a main link (L\_C:\Users\zXXXXX\Desktop\Testpfad) to the folder. In it are the data that end with .rvx.

More detailed description:

First a function is given which looks at the main link. It searches for the projects, which always have the ending .RVX.def search\_Project(mainlink):

    project\_liste = []

    for ordnername in os.listdir(mainlink):

        ordner\_pfad = os.path.join(mateipfad, ordnername)

        if os.path.isdir(ordner\_pfad) and ordnername.endswith(".RVX"):

            ordner\_liste.append(ordnername)

    return project\_liste

The following function finds the projects and the name.

(TO DO: Change the function so that the ending ".RVX" is deleted from the name, so that only the name appears at the end of the table).

Furthermore, there is a function that searches for the links of the individual projects:

def further\_path(mainlink, project\_liste):

    projekte = []

    for ordnername in project\_liste:

        ordner\_pfad = os.path.join(dateipfad, project\_liste)

        projekt = Projekt(project\_liste, ordner\_pfad)

        projekte.append(projekt)

    return projekte

mainlink= r"C:\Users\XXXX\Desktop\Testpfad"

projekt\_ordner = search\_Project(mainlink)

projekte = erweitere\_pfad(dateipfad, projekt\_ordner)

(To dos: the class of a project should therefore have the link for each project) But there are several projects, this can look something like this:

mport os

from openpyxl import Workbook, load\_workbook

import pandas as pd

import glob

class Projekt:

    def \_\_init\_\_(self, name, link):

        self.name = name

        self.link = link

The ISIS function is responsible for searching the ISIS file and the link to it. It searches for this in a file structure. The ISIS function receives the link of the main project as input.

First it searches in the folder for folders containing "GELATO".

In the folder Gelato it searches for folders that contain or start with "Macaroni".

In the Macaroni folder, it now searches for folders that end with the highest number.

In this folder it then looks for the folder "makeGelato" and in it are the ISIS files.

The ISIS files all end with .ISIS. The name of these files should be saved. There are one or more ISIS files for each project.

Thus we have 1 project with several ISIS files.

Filestructure: C:\Users\XXX\Desktop\Testpfad\Gelato.rvx\Macaroni\Macaroni.v33\makegelato

To dos: Adapt the function so that it is object-oriented. The function should also be able to output the link to the data and the file name. In the end, there should be several ISIS files for each project. A code written for the time being looks like this:

allelinks=[]

def isis (allelinks):

    projekt\_dict = {}

    Gelato = re.compile(r".\*Gelato$", re.IGNORECASE)

    for projekt\_pfad in allelinks:

        gelato\_pfad = os.path.join(projekt\_pfad, r"Gelato")

        if not os.path.isdir(gelato\_pfad):

            print(f"Der Ordner gelato wurde nicht im Projekt {projekt\_pfad} gefunden.")

            continue

        ziel\_ordner = None

        hoesste\_zahl = -1

        for ordnername in os.listdir(gelato\_pfad):

            if not os.path.isdir(os.path.join(gelato\_pfad, ordnername)):

                continue

            if ordnername.startswith("Makaroni"):

                zahl = int(ordnername.split(".")[-1][1:])

                if zahl > hoesste\_zahl:

                    hoesste\_zahl = zahl

                    ziel\_ordner = ordnername

        if ziel\_ordner is None:

            print(f"Es wurde kein Ordner mit dem Präfix Makaroni im Projekt {projekt\_pfad} gefunden.")

            continue

        make\_gelato = os.path.join(gelato\_pfad, ziel\_ordner, "make\_gelato")

        if not os.path.isdir(make\_gelato):

            print(f"Der Ordner 'maker' wurde nicht im Projekt {projekt\_pfad} gefunden.")

            continue

        projektnamen = []

        for root, dirs, files in os.walk(make\_gelato):

                for dateiname in files:

                        if dateiname.endswith(".isis", re.IGNORECASE):

                         datei\_pfad = os.path.join(root, dateiname)

                         projektnamen.append(datei\_pfad)

        if not projektnamen:

            print(f"Es wurden keine Dateien mit der Endung '.isis' im Projekt {projekt\_pfad} gefunden.")

            continue

        for projektname in projektnamen:

            projekt\_dict[os.path.basename(projektname)] = projektname

        for dateiname, pfad in projekt\_dict.items():

             print(dateiname, pfad)

    return projektname

Read out of the ISIS Text file and making the Excell

The programme reads ISIS files that are in the following format. To read the data, only the lines containing an "=" character are considered. Everything to the left of this character is stored as " NameBestandteile ", together with the corresponding values, which are called " NummerBestandteile ". Both components can contain letters, numbers and special characters.

For each project there is a name, a link, several ISIS files, file names of the ISIS files as well as NameBestandteile and associated NummerBestandteile for each individual ISIS file. From this data, an Excel file with two sheets is to be created. The second sheet contains only the data, while the first sheet contains a drop-down menu.

The second sheet should always show the name of the project at the top. Below that are the names of the individual ISIS files. For each ISIS file, the name components are to be displayed underneath and the number components to the right. This is to be done for all projects.

Ein Bild, das Text, Software, Multimedia-Software, Computersymbol enthält.

Automatisch generierte Beschreibung

The first sheet consists of dropdown menus. The first drop-down menu contains " NummerBestandteile ". The next dropdown menu displays a list of related projects from which to choose, and the third displays the individual names of the ISIS files. The fourth drop-down menu displays the values of the NummerBestandteile in the last window (e.g. NummerBestandteile.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | Name des Inhalts | | Welche Projekt | | Welche Art von Eisdiele | | Nummerdes Inhalts | |
|  | (dropdown) |  | (dropdown) |  | (dropdown) |  | (output (exampel) | |
|  | #name of (NameBestandteile) | | #name of Project | | #name of isis | | #number (NummerBestanteil | |
|  |  |  |  |  |  |  |  |  |
| Exampel | GENERELE\_TEMPE | | Projekt2019 |  | Eissorten |  | 1924 |  |
|  |  |  |  |  |  |  |  |  |

To dos: can you make the Excel file a bit nicer. The Excel file with the drop down menu should be exactly as indicated, but if necessary you can change the 2 list.