Introduction à Python

Rules :

— The projects are strictly personnal. No more than three students can choose a project.
— The program has to be run by a user without reading the source code. A man page must be available.
— The source code will be analyzed with a software of fraud detection.

Projet 1 : Mastermind

The aim of the project is to make a Mastermind game (Mastermind). The project has no graphical part and can be run on command line.

Projet 2 : FreeCell

The aim of the project is to make a FreeCell game (FreeCell). The project has no graphical part and can be run on command line.

Projet 3 : Black Jack

The aim of the project is to make a Blackjack game (Blackjack). The project has no graphical part and can be run on command line.

Projet 4 : Bank account management

The aim of the project is to make a small application of bank account management. The project has no graphical part and can be run on command line. The datas will be saved in JSON format between two executions of the program. A user can have multiple accounts (in one currency, which is a choice of the user) and can make the following operations :

— Transfer between accounts
— Expense in any currency (the change is done by getting live currency rate from google) : amount, date, and a short description
— Income : amount, date and a short description

.

The user can print on screen the operations with date selections, the balance and all useful informations.

Projet 5 : Library management system

A library system is a system which comprises a relational database, software to interact with that database, and two command line user interfaces (one for readers, one for staff). The system can manage :

— cataloging (classifying and indexing materials)
— circulation (lending materials to patrons and receiving them back)
— each patron and item has a unique ID in the database.

Projet 6 : Option pricing

The aim of the project is to make a small pricer. All documentation (included mathematical papers) will be given later.

Projet 7 : Modern art

The aim of the project is to reproduce Vasarely pictures in Python with the turtle module. The figure 1 has to be reproduced :

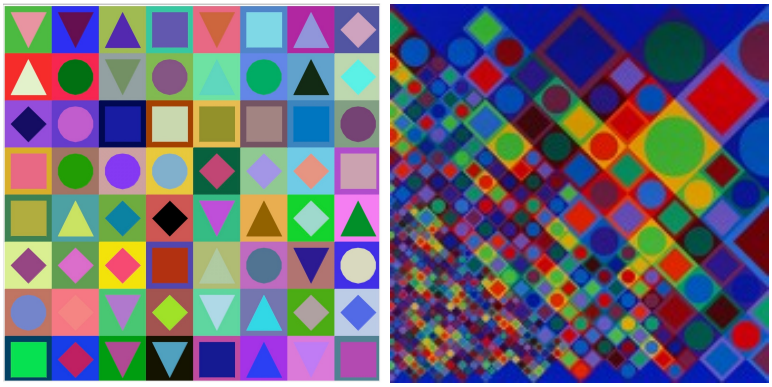

FIGURE 1 – Vasarely figures to reproduce