INGÉ1 - UNIX
LAB 3 – Regular Expressions
ESME Bordeaux-Lille-Lyon-Paris

Exercise 1 : Email Address Verification

Q1. Write the regular expression to find email addresses. The regular expression must adhere to the format of a valid email address and verify the following conditions:

- The username is a non-empty string that can contain letters, digits, hyphens, underscores, and dots.

- Only letters, digits, periods, and hyphens are allowed in the domain name, which must be at least 2 characters long.

- The domain extension consists of 2 to 5 lowercase letters.

Exercise 2 : Searching for lines in a file

Write the regular expression to:
Q1. Search in the file **/etc/passwd** for lines where the first letter can be any character, and the second letter must be **o**.

Q2. Search in the file **/etc/passwd** for lines that start with **u**.

Q3. Search for lines that do not start with **u**.

Exercise 3 : Metacharacters in regular expressions

Consider the following file, `phone.txt`:

```
Durand,Sophie:4-5471
Bigard,Jean-Marie:8-7463
Roumanoff,Anne:3-8456
Satriani,Joe:7-1554
Saintlazar,Rob:5-8451
Vai,Steve:7-9547
Maiden,Iron:9-6669
```

Q1. Display lines where the phone number starts with a 5 and ends with a 1.

Q2. Display lines where the last name starts with an S and the first name starts with an R.

Q3. Display lines where the last name starts with letters ranging from M to Z.

Q4. Display lines where the last name starts with letters ranging from M to Z and the phone number ends with either a 1 or a 2.

Q5. Display lines where the first name is composed of four characters.