

## Lab Exercise 6

1. Write a program using the Regular Exception and create a function that accepts a string and searches it for a valid phone number. Return the phone number if found. A valid phone number may be one of the following: (xxx)-xxx-xxxx xxx-xxx-xxxx

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In [ ]: import re

def find_phone_number(number):
    pattern = r'\b\d{3}-\d{3}-\d{4}\b'
    match = re.search(pattern, number)

    if match:
        return match.group()
    else:
        return None

def main():
    input_text = input("Enter a text to search for a valid phone number: ")
    phone_number = find_phone_number(input_text)

    if phone_number:
        print("Valid phone number found:", phone_number)
    else:
        print("No valid phone number found in the input text.")

main()
```

Valid phone number found: 790-515-5089

2. Write a function that employs regular expressions to ensure the password given to the function is strong. A strong password is defined as follows:
  - at least eight characters long
  - contains one uppercase character
  - contains one lowercase character
  - has at least one digit
  - has at least one special character [For instance: Christ@123]

```
In [ ]: import re

def is_strong_password(password):
    pattern = r"^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)(?=.*[@$!%*?&])[A-Za-z\d@$!%*?&]{8,}"
    return re.match(pattern, password) is not None

def main():
    password = input("Enter a password: ")
    print(password)
    if is_strong_password(password):
        print("The password is strong.")
    else:
        print("The password is not strong.")

main()
```

Christ@123

The password is strong.