



Department of Humanities and Applied Science

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Subject: VSEC202 Python Programming

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Aim: To write python program to use regular expressions in Python for efficient pattern matching, validation, and data extraction.

Problem Statement: 1: Write a Python script that prompts the user to enter their phone number and email ID. It then employs Regular Expressions to verify if these inputs adhere to standard phone number and email address formats.

2: Create a program that reads a text file containing various data (e.g., names, emails, phone numbers). Use regular expressions to extract specific 02 171 types of data, such as email addresses, phone numbers, dates (e.g., MM/DD/YYYY format).

Program: import re def

validate_phone(phone):

pattern = re.compile(r'^(\+91[\s-]?)?[6789]\d{9}\$')

return bool(pattern.match(phone))

def validate_email(email):

pattern = re.compile(r'^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}\$')

return bool(pattern.match(email))

phone = input("Enter your phone number: ") email

= input("Enter your email ID: ")



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```
if validate_phone(phone):  
    print("Valid phone number")  
else:    print("Invalid phone  
number")
```

```
if validate_email(email):  
    print("Valid email ID")  
else:    print("Invalid  
email ID")
```

Output:

```
<1 internal line>  
Enter your phone number: 7900046862  
Enter your email ID: jamilk@gmail.com  
Valid phone number  
Valid email ID  
> <1 internal line>
```



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```
<1 internal line>  
Enter your phone number: 546804959  
Enter your email ID: notanemail  
Invalid phone number  
Invalid email ID  
> <1 internal line>
```

Conclusion: Thus we have implemented Regex programs in python to validate phone number and email id and also to extract data from the file.