



Shri Yashwantrao Bhonsale Education Society's  
**YASHWANTRAO BHONSALE INSTITUTE OF TECHNOLOGY**

(DTE CODE : 3470) (MSBTE Code : 1742)

Approved by AICTE, DTE & Affiliated to Mumbai University & MSBTE Mumbai  
(NBA Accredited ME, CE, EE Diploma Programs)

## Practical No 16

### Aim

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.

### Apparatus / Software Required

- Python Interpreter (Python 3.14.2)

### Theory

◆ Regular Expressions (Regex) are used in Python for pattern matching and validation of strings. The built-in module `re` module provides functions to compare input data with predefined patterns.

**In this practical, Regex is used to validate:**

- Phone Number (10 digits or with country code)
- Email ID (standard email format)

### ◆ Important Methods Used

#### ★ 1. `re.match()`

- Matches pattern from the beginning of the string
- Used to validate phone number and email

`re.match(pattern, string)`

#### ★ 2. `re.fullmatch()`

- Matches the entire string
- More accurate than `re.match()`

`re.fullmatch(pattern, string)`



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◆ **3. re.search()** (Theory Only)

- Searches pattern anywhere in the string
  - Not suitable for validation
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◆ **4. re.compile()** (Optional)

- Used to reuse regex patterns
  - Improves efficiency
- 



## Phone Number Validation

**A valid phone number:**

- Contains 10 digits
- May include country code **+91**

**Regex Pattern:**

```
^\(+91)?[6-9]\d{9}$
```



## Email Validation

**A valid email contains:**

- Username + @ + domain

**Regex Pattern:**

```
^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$
```







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**Conclusion**

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