**1)create and print variables and also print each variable and its type using type().**

>>> name='John'

>>> age=25

>>> height=5.9

>>> is\_student=True

>>> print(name)

John

>>> print(age)

25

>>> print(height)

5.9

>>> print(is\_student)

True

>>> print(type(name))

<class 'str'>

>>> print(type(age))

<class 'int'>

>>> print(type(height))

<class 'float'>

>>> print(type(is\_student))

<class 'bool'>

**2)Change value and type.Assign a number to a variable,then change it to a string print the value and type before and after**

>>> a=10

>>> print(a)

10

>>> print(type(a))

<class 'int'>

>>> a="ten"

>>> print(a)

ten

>>> print(type(a))

<class 'str'>

**3)Guess the Type**

**Give a list of values and ask students to guess the datatype before using type() to check.**

>>> a=[10,3.14,"hello",True]

>>> print(type(10))

<class 'int'>

>>> print(type(3.14))

<class 'float'>

>>> print(type("hello"))

<class 'str'>

>>> print(type("True"))

<class 'str'>

**4. Variable Naming Practice**

**Ask students to create variables with meaningful names:**

**A variable for a student’s name**

**A variable for exam marks**

**A variable for pass/fail status**

Name=”Lakshmi”

Marks=89

Exam Status=True

**5. Identify Errors**

**Give wrong variable assignments and ask them to correct:**

**python**

1)1name = "Alice"

File "<python-input-6>", line 1

1name = "Alice"

^

SyntaxError: invalid decimal literal

Variables are does not start with numbers so the correct statement is

Name=”Alice”

2) my-age = 20 # Invalid

File "<python-input-7>", line 1

my-age = 20

^^^^^^

SyntaxError: cannot assign to expression here. Maybe you meant '==' instead of '='?

It is invalid because variables are does not allowed “-“ symbol but the variable allows “\_”underscore

The correct statement is

My\_age=20

3) print(Name)

Traceback (most recent call last):

File "<python-input-8>", line 1, in <module>

print(Name)

^^^^

NameError: name 'Name' is not defined

It shows error because name dose not assigned to a value the correct statement is

Name=”sri”

Print(Name)

Opuptt:sri

**6. Simple Story with Variables**

**Ask students to write a mini-story using variables:**

**python**

**hero = "Spider-Man"**

**villain = "Green Goblin"**

**city = "New York"**

**print(hero, "saved", city, "from", villain)**

output:- Spider-Man saved New York from Green Goblin

**7. Swap Values**

**Create two variables and swap their values:**

**python**

**a = 5**

**b = 10**

**# After swapping: a = 10, b = 5**

>>> a=5

>>> b=10

>>> temp=b

>>> b=a

>>> a=temp

>>> print(a,b)

10 ,5