6.Strings

1. Different ways creating a string
2. Concatenating two strings using + operator
3. Finding the length of the string
4. Extract a string using Substring
5. Searching in strings using index()
6. Matching a String Against a Regular Expression With matches()
7. Comparing strings
8. startsWith(), endsWith() and compareTo()
9. Trimming strings with strip()
10. Replacing characters in strings with replace()
11. Splitting strings with split()
12. Converting integer objects to Strings
13. Converting to uppercase and lowercase

main.py Shell

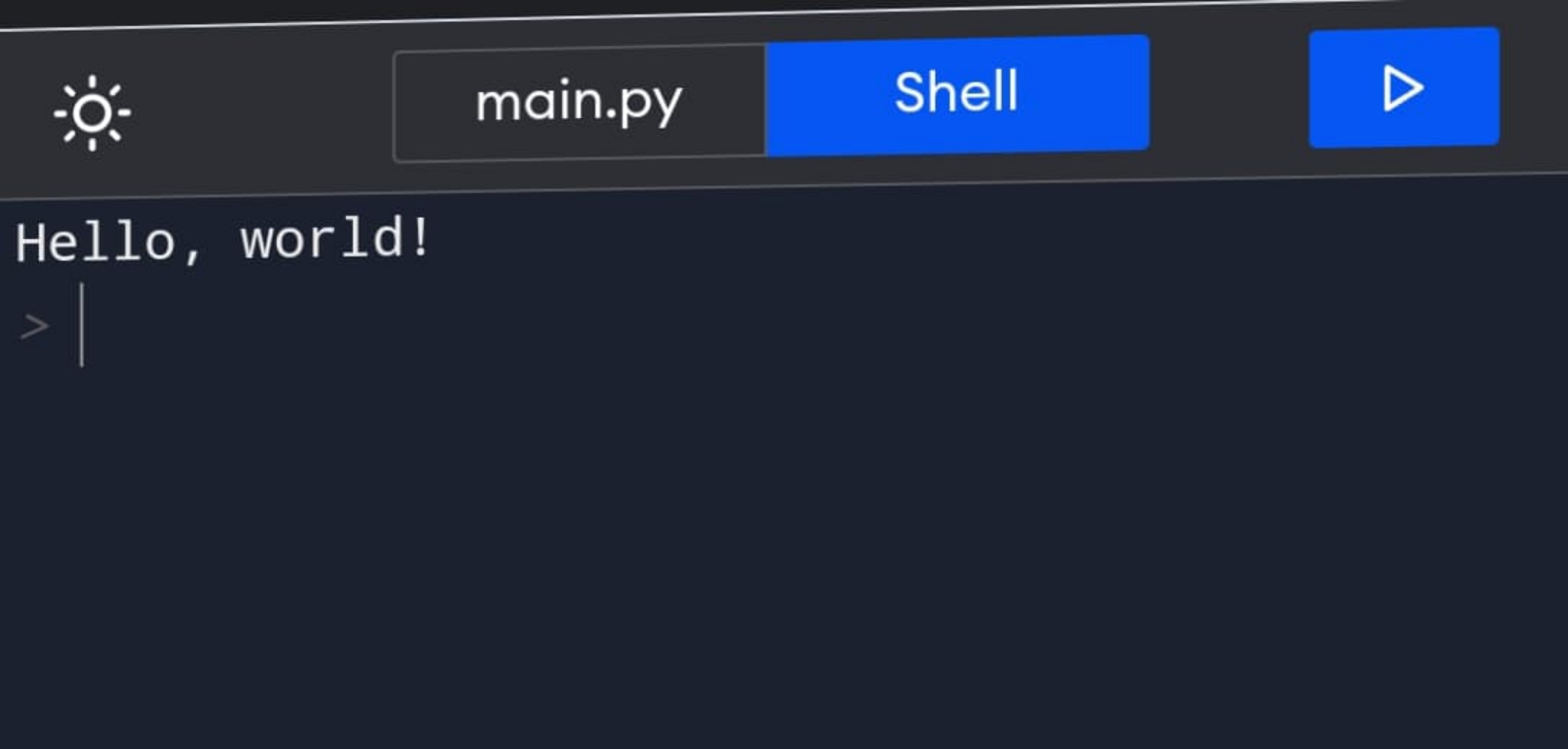
```
1  # 1th program...
2  string1 = 'This is a string.'
3  string2 = "This is also a string."
4  string3 = """This is a multiline string
       .It can span multiple lines.
5  """
6  print(string1)
7  print(string2)
8  print(string3)
9
10
11
```


```
This is a string.
This is also a string.
This is a multiline string.It can span
    multiple lines.

> 
```

main.py Shell

```
1  # 2nd program...
2  string1 = "Hello, "
3  string2 = "world!"
4  concatenated_string = string1 + string2
5  print(concatenated_string)
6
```


main.py
Shell
Hello, world!
>

main.py Shell

```
1 # 3.program...
2 string="Hello"
3 print(len(string))
```

main.py Shell

```
5
> |
```

main.py Shell

```
1  # 4th program...
2  original_string = "Hello,SANTHOSH"
3  # Extract a substring from index 0 to 4
       (inclusive)
4  substring = original_string[0:5]
5  print(substring)
6
```

main.py Shell

```
Hello
> 
```

main.py Shell

```python
# 5 th program...
my_string = "Hello, Santhosh!"
# Find the index of the substring "World"
index = my_string.index("Santhosh")
print("Index of 'Santhosh':", index)
```

main.py Shell

```
Index of 'Santhosh': 7
> 
```

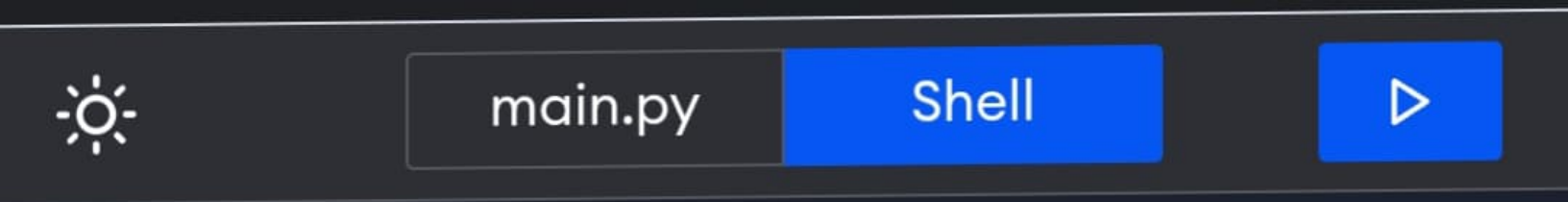
main.py Shell

```python
# 6th program...
import re
pattern = r"Hello, \w+"
my_string = "Hello, World!"
match = re.match(pattern, my_string)
if match:
    print("String matches the pattern.")
else:
    print("String does not match the
        pattern.")
```


```
String matches the pattern.
> 
```

main.py Shell

```python
# 6th program...
string1 = "Santhosh"
string2 = "Kumar"
if string1 == string2:
    print("Strings are equal")
else:
    print("Strings are not equal")
```


main.py
Shell
Strings are not equal
>

main.py Shell

```
# 8th program...
text = "Hello, World!"
if text.startswith("Hello"):
text = "Hello, World!"
if text.endswith("World!"):
    print("String ends with 'World!'")
string1 = "apple"
string2 = "banana"
if string1 < string2:
    print("string1 comes before
        string2")
elif string1 > string2:
    print("string1 comes after string2"
        )

else:
    print("Both strings are equal")
```

main.py Shell

```
String starts with 'Hello'
String ends with 'World!'
string1 comes before string2
> 
```

main.py Shell

```
1  # 9th program...
2  original_string = "   This is a string
       with leading and trailing spaces.
       "
3  trimmed_string = original_string.strip()
4  print(trimmed_string)
```


```
This is a string with leading and trailing
    spaces.
> 
```

main.py Shell

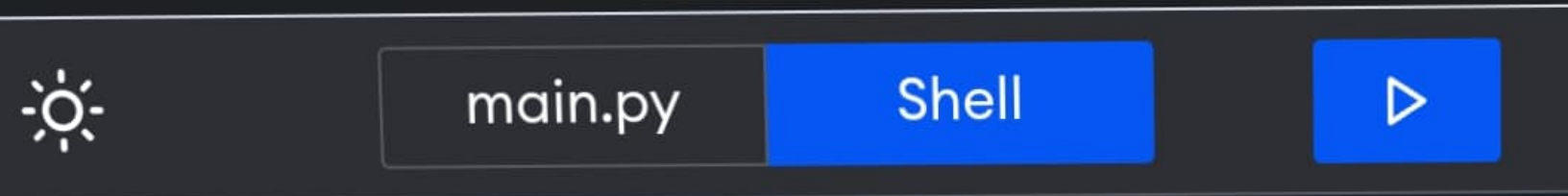
```python
# 10th program...
string = "This is a string"
new_string = string.replace(' ', '_')
print(new_string)

```


```
This_is_a_string
> 
```

main.py Shell

```
1  # 11th program...
2  string = "This is a string"
3  words = string.split(' ')
4  print(words)
5
6
```


main.py
Shell
['This', 'is', 'a', 'string']
>

main.py Shell

```python
# 12th program...
def convert_int_to_string(number):
    """
    This function converts an integer
        object to a string.

    Args:
      number: The integer object to be
          converted.

    Returns:
      The string representation of the
          integer object.
    """
    return str(number)


number = 12345

# Convert the integer object to a
    string
string_representation =
    convert_int_to_string(number)
print(string_representation)
```

main.py Shell

```
12345
> 
```

main.py Shell

```python
#13th program...
def convert_to_uppercase(string):
    return string.upper()
def convert_to_lowercase(string):
    return string.lower()
string = "Hello, world!"
print(convert_to_uppercase(string))
print(convert_to_lowercase(string))

```

main.py Shell

```
HELLO, WORLD!
hello, world!
> 
```