### CSE 4321 Project Test Cases

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#### **Test Paths**

#### main

```
Test Path 1: [Start, 1, 2, 6, 7, 8, 9, 10, 8, End]
Test Path 2: [Start, 1, 3, 4, 6, 7, 8, End]
Test Path 3: [Start, 1, 3, 5, End]
```

#### open\_character\_stream

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, End]
```

#### open\_token\_stream

```
Test Path 1: [Start, 1, 2, 4, End]
Test Path 2: [Start, 1, 3, 4, End]
```

#### get\_token

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, 4, 5, 4, 6, 7, End]
Test Path 3: [Start, 1, 3, 4, 6, 8, 9, End]
Test Path 4: [Start, 1, 3, 4, 6, 8, 10, 11, 12, 13, 14, 15, End]
Test Path 5: [Start, 1, 3, 4, 6, 8, 10, 12, 14, 16, 17, 18, 19, 17, 20, 21, End]
Test Path 6: [Start, 1, 3, 4, 6, 8, 10, 12, 14, 16, 17, 20, 22, 23, End]
Test Path 7: [Start, 1, 3, 4, 6, 8, 10, 12, 14, 16, 17, 20, 22, 24, 25, End]
Test Path 8: [Start, 1, 3, 4, 6, 8, 10, 12, 14, 16, 17, 20, 22, 24, 26, 27, End]
Test Path 9: [Start, 1, 3, 4, 6, 8, 10, 12, 14, 16, 17, 20, 22, 24, 26, 28, End]
```

#### is\_token\_end

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, 4, 6, End]
Test Path 3: [Start, 1, 3, 4, 5, End]
Test Path 4: [Start, 1, 3, 7, 8, 9, End]
Test Path 5: [Start, 1, 3, 7, 8, 10, End]
Test Path 6: [Start, 1, 3, 7, 11, 12, End]
Test Path 7: [Start, 1, 3, 7, 11, 13, 14, End]
Test Path 8: [Start, 1, 3, 7, 11, 13, 15, End]
```

#### token\_type

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, 4, End]
Test Path 3: [Start, 1, 3, 5, 6, End]
Test Path 4: [Start, 1, 3, 5, 7, 8, End]
Test Path 5: [Start, 1, 3, 5, 7, 9, 10, End]
Test Path 6: [Start, 1, 3, 5, 7, 9, 11, 12, End]
Test Path 7: [Start, 1, 3, 5, 7, 9, 11, 13, 14, End]
Test Path 8: [Start, 1, 3, 5, 7, 9, 11, 13, 15, End]
```

#### print\_token

```
Test Path 1: [Start, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, End]
Test Path 2: [Start, 1, 3, 5, 7, 9, 11, End]
```

#### is\_comment

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, End]
```

#### is\_keyword

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, End]
```

#### is\_char\_constant

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, End]
```

#### is num constant

```
Test Path 1: [Start, 1, 2, 8, End]
Test Path 2: [Start, 1, 2, 3, 4, 6, End]
Test Path 3: [Start, 1, 2, 3, 4, 5, 3, 7, End]
```

#### is\_str\_constant

```
Test Path 1: [Start, 1, 2, 8, End]
Test Path 2: [Start, 1, 2, 3, 4, 5, End]
Test Path 3: [Start, 1, 2, 3, 4, 6, 3, 7, End]
```

#### is\_identifier

## Test Path 1: [Start, 1, 2, 8, End] Test Path 2: [Start, 1, 2, 3, 4, 6, End] Test Path 3: [Start, 1, 2, 3, 4, 5, 3, 7, End]

#### print\_spec\_symbol

```
Test Path 1: [Start, 1, 2, End]
Test Path 2: [Start, 1, 3, 4, End]
Test Path 3: [Start, 1, 3, 5, 6, End]
Test Path 4: [Start, 1, 3, 5, 7, 8, End]
Test Path 5: [Start, 1, 3, 5, 7, 9, 10, End]
Test Path 6: [Start, 1, 3, 5, 7, 9, 11, 12, End]
Test Path 7: [Start, 1, 3, 5, 7, 9, 11, End]
```

#### is\_spec\_symbol

# Test Path 1: [Start, 1, 2, End] Test Path 2: [Start, 1, 3, 4, End] Test Path 3: [Start, 1, 3, 5, 6, End] Test Path 4: [Start, 1, 3, 5, 7, 8, End] Test Path 5: [Start, 1, 3, 5, 7, 9, 10, End] Test Path 6: [Start, 1, 3, 5, 7, 9, 11, 12, End] Test Path 7: [Start, 1, 3, 5, 7, 9, 11, 13, 14, End] Test Path 8: [Start, 1, 3, 5, 7, 9, 11, 13, 14, 15, End]

#### **Program-Level Testing Paths**

#### Test Path 1

```
[main.Start, main.1, main.2, main.6,
  open_token_stream.Start, open_token_stream.1, open_token_stream.2, open_token_stream.4,
 open_token_stream.End
main.6, main.7,
 get_token.Start, get_token.1, get_token.2, get_token.End,
main.7, main.8, main.9,
 print_token.Start, print_token.1,
    token_type.Start, , token_type.1,
     is_keyword.Start, is_keyword.1, is_keyword.2, is_keyword.End,
    token_type.1, token_type.3,
     is spec symbol. Start, is spec symbol. 1, is spec symbol. 2, is spec symbol. End
    token_type.3, token_type.5,
     is_identifier.Start, is_identifier.1, is_identifier.2, is_identifier.8, is_identifier.End
    token_type.5, token_type.7,
     is_num_constant.Start, is_num_constant.1, is_num_constant.2, is_num_constant.8,
     is_num_constant.End
    token type.7, token type.9, token type.11, token type.13, token type.15, token type.End,
  print token.1, print token.2, print token.3, print token.4, print token.5, print token.6,
 print_token.7, print_token.8, print_token.9, print_token.10, print_token.11, print_token.12,
 print_token.End,
main.9, main.10,
 get_token.Start, get_token.1, get_token.3, get_token.4, get_token.5, get_token.4, get_token.6,
 get_token.7, get_token.End,
main.10, main.8, main.9,
  print_token.Start, print_token.1,
    token_type.Start,
main.9, main.main.End]
Test Path 2
[main.Start, main.1, main.3, main.4, main.6, main.7,
 get_token.Start, get_token.1, get_token.3, get_token.4, get_token.6, get_token.8, get_token.9,
 get token.End.
main.8, main.End]
Test Path 3
[main.Start, main.1, main.3, main.5, main.End]
Test Path 4
[main.Start, main.1, main.2, main.6, main.7,
 get_token.Start, get_token.1, get_token.3, get_token.4, get_token.6, get_token.8, get_token.10,
 get_token.11, get_token.12, get_token.13, get_token.14, get_token.15, get_token.End,
main.7, main.8, main.9,
 print_token.Start, print_token.1,
    token_type.Start, , token_type.1,
```

```
is_keyword.Start, is_keyword.1, is_keyword.3, is_keyword.End, token_type.1, token_type.2, token_type.End, print_token.1, print_token.3, print_token.5, print_token.7, print_token.9, print_token.11, print_token.End, main.9, main.10, get_token.Start, get_token.1, get_token.3, get_token.4, get_token.6, get_token.8, get_token.10, get_token.12, get_token.14, get_token.16, get_token.17, get_token.18, get_token.19, get_token.17, get_token.20, get_token.21, get_token.End, main.10, main.8, main.End]
```