

Simplifying Condition Testing with Matching



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Matching Examples

```
select
  case i
    when 42 then
      "The Answer"
    when 41 then
      "Close but not quite"
    else
      "I can't match that!"
  end
```

SQL

```
let m i =
  match i with
  | 42 -> "The Answer"
  | 41 -> "Close but not quite"
  | _   -> "I can't match that!"
```

F#

```
match :: (Integral i) => x -> String
match 42 = "The Answer"
match 41 = "Close but not quite"
match x = "I can't match that!"
```

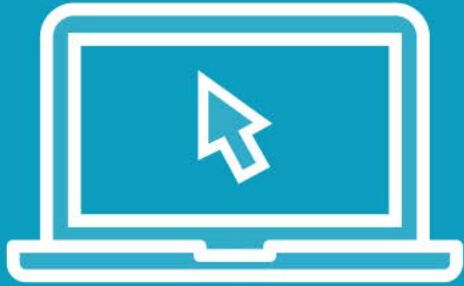
Haskell

Demo



Sample Python matches

Demo



What we want:

Simple API that mirrors matching syntax

Visible distinctive

Multiple matches with “or” syntax

Matches everything operation

Catch missing cases

Demo



The Match class

Demo



Add validations to the order class

Raise exceptions if anything is missing

An order ID must be numeric

The expedited and shipped indicators must be Boolean

The customer reference must be a Customer object

The list of order items must contain OrderItem objects

Summary



Matching in FP languages

Matching in standard Python

Python Match class

- Operator overloads
- @singledispatch decorator

Matching for validation

Should you use it?

Python syntax support?