

Hello world

```
# hello.exs
defmodule Greeter do
  def greet( name) do
    message = " Hello, " <>
name <> " !"
    IO.puts message
  end
end
Greeter.greet("w orl d")
```

```
elixir hello.exs
# Hello, world!
```

Pattern matching

```
user = %{name: "Tom", age: 23}
%{name: username} = user
```

This sets username to "Tom".

If

```
if false do
  "This will never be seen"
else
  "This will"
end
```

Types (Primitives)

nil	Nil/null
true / false	Boolean
?a	Integer (ASCII)
23	Integer
3.14	Float
'hello'	Charlist
<<2, 3>>	Binary
"hello"	Binary string
:hello	Atom
[a, b]	List
{a, b}	Tuple
%{a: "hello"}	Map
%MyStruct{a: "hello"}	Struct
fn -> ... end	Function

Modules (Importing)

```
require Redux # compiles a module
import Redux # compiles, and you can use
without the Redux. prefix
use Redux # compiles, and runs Redux._-
_using_/1
use Redux, async: true
import Redux, only: [duplicate: 2]
import Redux, only: :functions
import Redux, only: :macros
import Foo.{Bar, Baz}
```

Maps

```
user = %{
  name: " Joh n",
  city: " Mel bou rne "
}
```

```
IO.puts "Hello, " <> user.name
```

Variables

```
age = 23
```

Pattern matching in functions

```
def greet(%{name: username}) do
  IO.puts " Hello, " <>
username
end
user = %{name: " Tom ", age: 23}
```

Pattern matching works in function parameters too.

Case

```
case {1, 2, 3} do
  {4, 5, 6} ->
    "This clause won't
match"
  {1, x, 3} ->
    "This will match and
bind x to 2"
  _ ->
    "This will match any
value"
end
```

With

```
case Users.create_user(attrs) do
  {:ok, user} -> ...
  {:error, changeset} -> ...
end
with {:ok, user} <- Users.c re -
ate _us er( attrs) do
  ...
else
  {:error, changeset} -> ...
end
```

Lists

```
users = [ "Tom", "Dick", "Harry"
]
Enum.map( users, fn user ->
  IO.puts " Hello " <> user
end)
```

Piping

```
source
|> transform (:h ello)
|> print()

# Same as:
print( tra nsf orm (so urce,
:hello))
```

These two are equivalent.

Cond

```
cond do
  1 + 1 == 3 ->
    "I will never be seen"
  2 * 5 == 12 ->
    "Me neithe r"
  true ->
    "But I will (this is
essent ially an else)"
end
```



Errors

```
try do
  throw(:hello)
catch
  message -> "Got #{message}."
after
  IO.puts("I'm the after
  clause.")
end
```

Type checks

```
is_atom/1      is_binary/1   is_nil/1
is_bitstring/1 is_list/1     is_number/1
is_boolean/1   is_map/1      is_pid/1
is_function/1  is_tuple/1    is_port/1
is_function/2                is_reference/1
is_integer/1
is_float/1
```

Operators

```
left != right # equal
left !== right # match
left ++ right # concat lists
left <> right # concat string/binary
left =~ right # regexp
```



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Page 2 of 2.

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