Getting Started with Elixir

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Video 3.2

Forms of Pattern Matching

1× 0:00 / 6:39

In this video, we are going to take a look at...

- Types of pattern matching
- Binary types
- Leveraging pattern matching

1× 0:11 / 6:39

$$x = 1$$

Pattern Matching

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Pattern Matching Revisited

```
[1,2,3] = [1,2,3]
```

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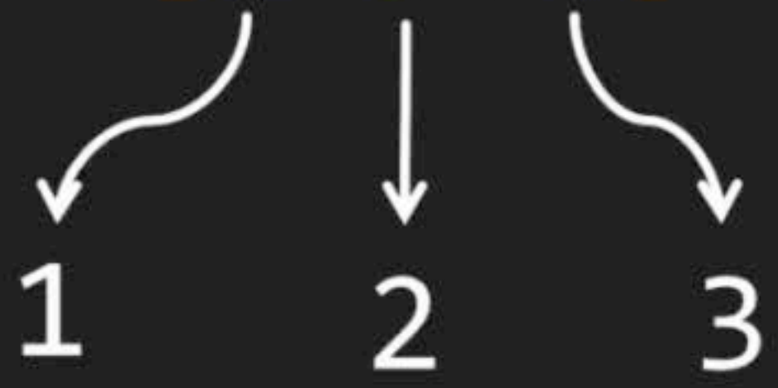
Pattern Matching Revisited

```
[x, y, z] = [1, 2, 3]
```



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Pattern Matching Revisited

```
[x,2,3] = [1,2,3]
```

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Pattern Matching Revisited

```
[x|[2,3]] = [1,2,3]
```

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Pattern Matching Revisited

```
[x|y] = [1,2,3]
```

x → 1

y → [2,3]

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Pattern Matching Revisited

```
{:ok, result} = {:ok, 10}
```

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Pattern Matching Revisited

```
{name, age} = {“Francis”, 30}
```

Packt
Udemy

Pattern Matching Revisited

```
{name, age} = {"Francis", 30}
```

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Udemy

Pattern Matching Revisited

```
{name, _} = {"Francis", 30}
```

The underscore matches anything
and is an unreadable variable

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Pattern Matching Revisited

```
%{name: name} = %{name: “Francis”, age: 30}
```

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Pattern Matching Revisited

```
%{name: name} = %{name: "Francis", age: 30}
```

Matches as long as the key is present on the right hand side

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A New Type

- Binary list

<<1,2,3>>

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A New Type

<<1,2,3>>

1 byte

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A New Type

<<1,2,3>> <> <<4>>

concatenation

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A New Type

<<1,2,3,4>>

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A New Type

```
<<1::size(16)>>
```

Binaries can be tagged with
a size atribute

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A New Type

<<65,”broad”>>

“Abroad”

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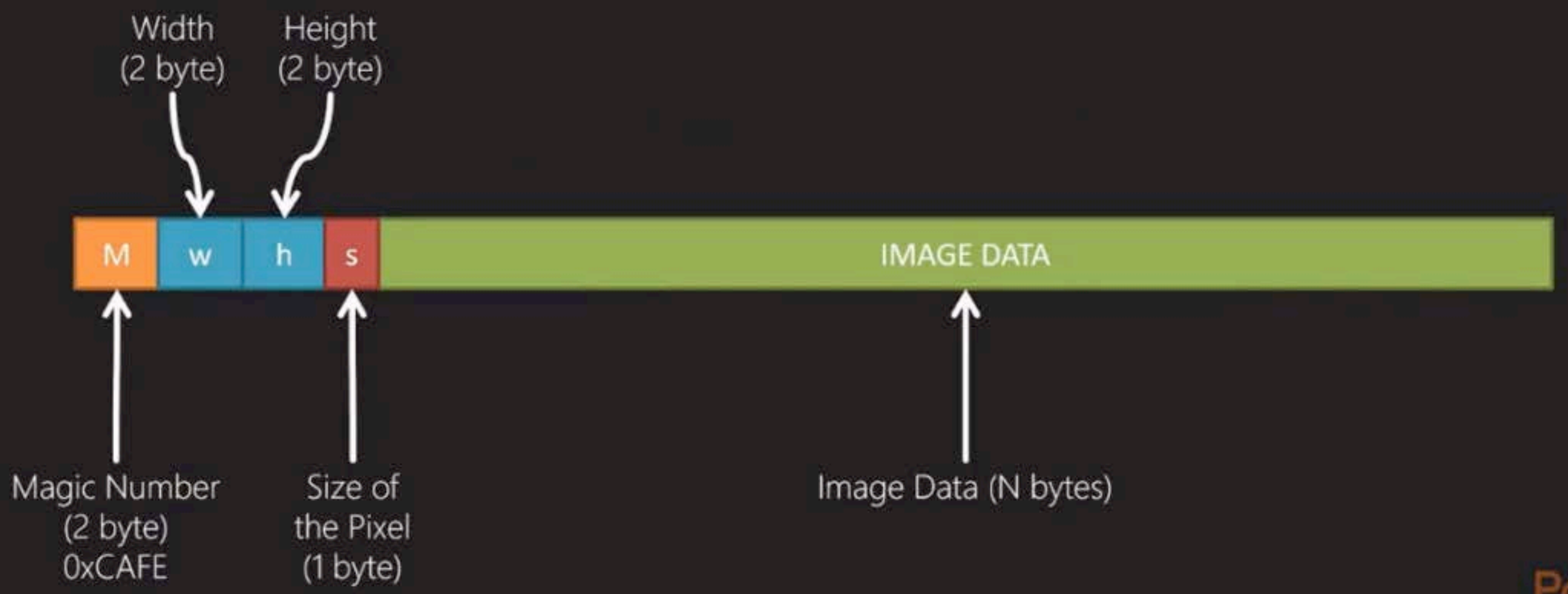
A New Problem

FIF (Fictitious Image Format)



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A New Problem

FIF (Fictitious Image Format)

```
<<
  0xCAFE::16,
  width::16,
  height::16,
  pixel_size,
  image_data::binary
>>
```

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A New Problem

FIF (Fictitious Image Format)

```
<<
  0xCAFE::16,
  width::16,
  height::16,
  pixel_size,
  image_data::binary
>>
```

Can only be used at the end of the pattern

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A New Problem

FIF (Fictitious Image Format)

```
<<
  0xCAFE::16,
  width::16,
  height::16,
  pixel_size,
  image_data::binary
>> = << ... >>
```

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Summary

- Discussed pattern matching versus assignment
- Explored pattern matching in complex types
- Discovered binaries

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