

Ship Your Code

*While
it's*

Hot



**Albert
Zak**

- 1. Hot Swap**
- 2. Release**
- 3. Upgrade**
- 4. Deploy**
- 5. Pitfalls**
- 6. Automate**





mix start

Hot Swap





current



old



current



old



current



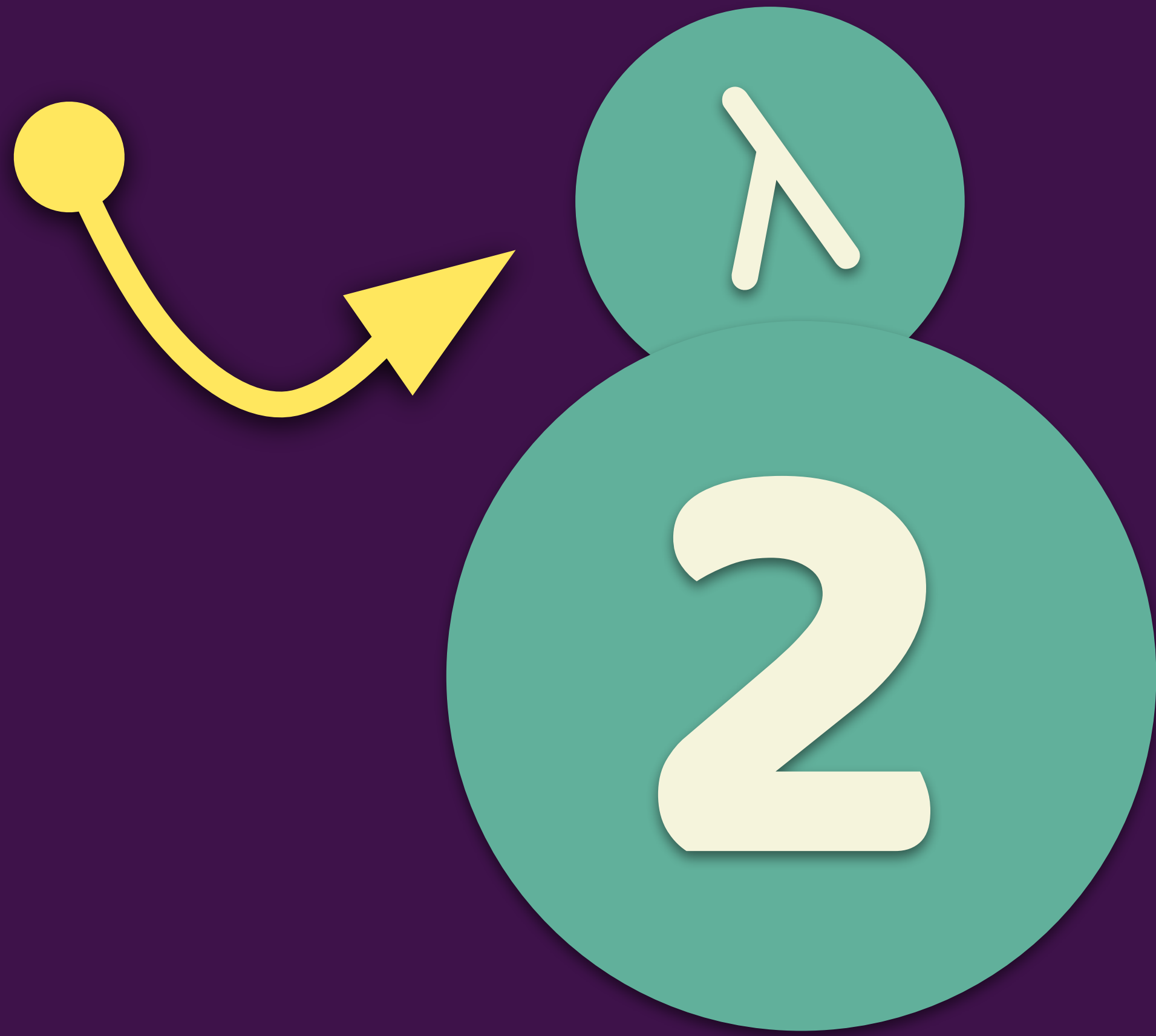
old



current



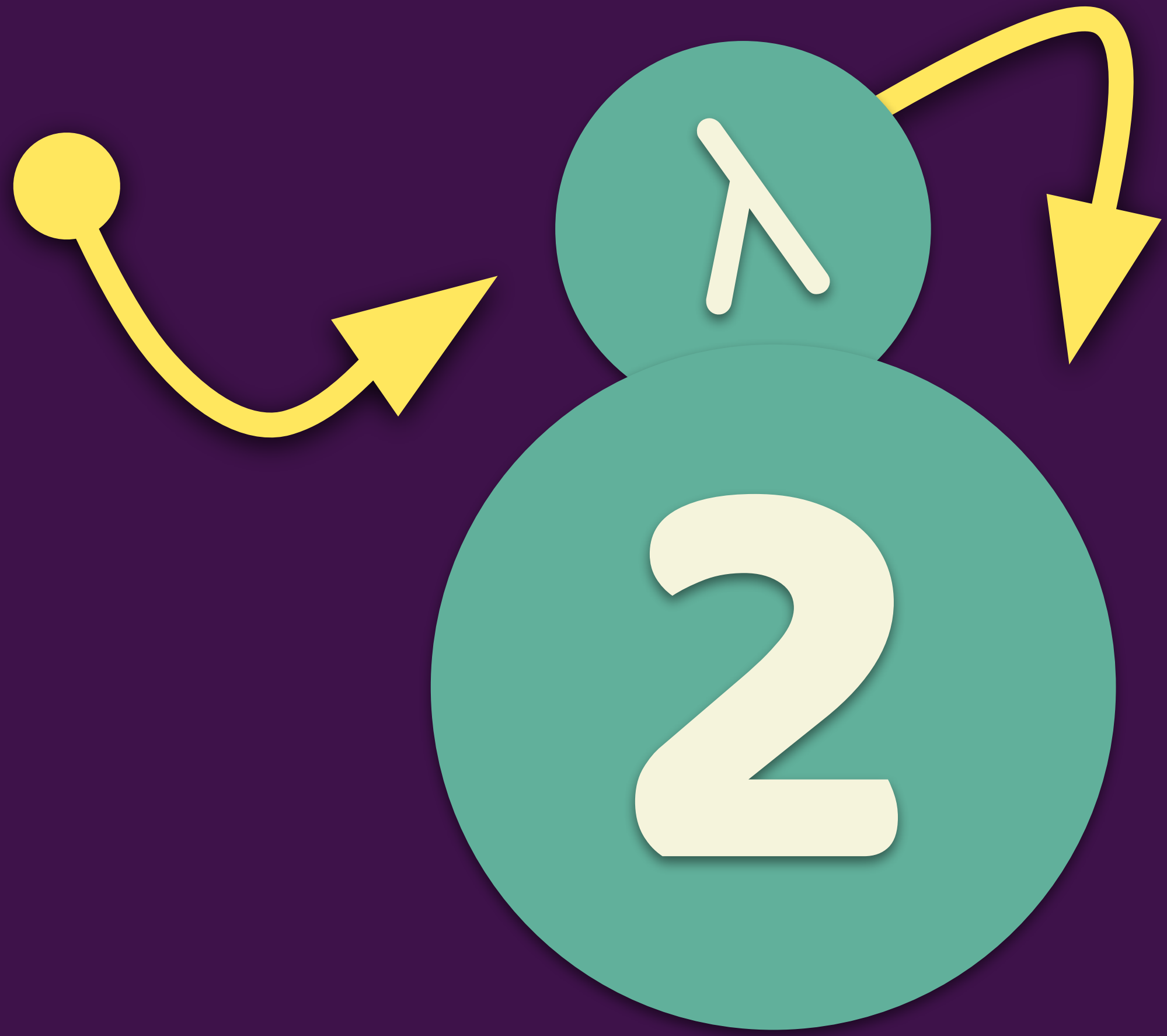
old



current



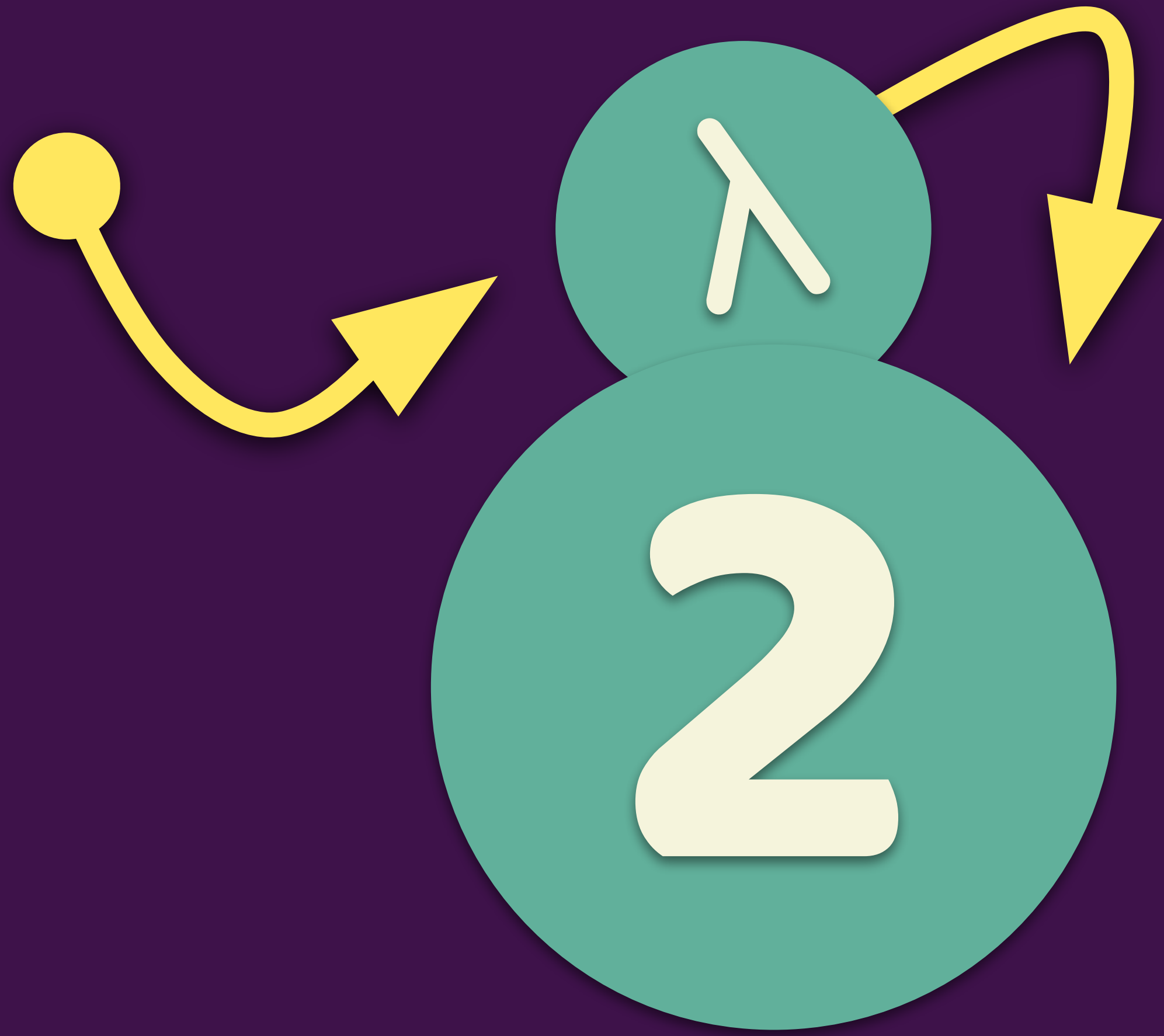
old



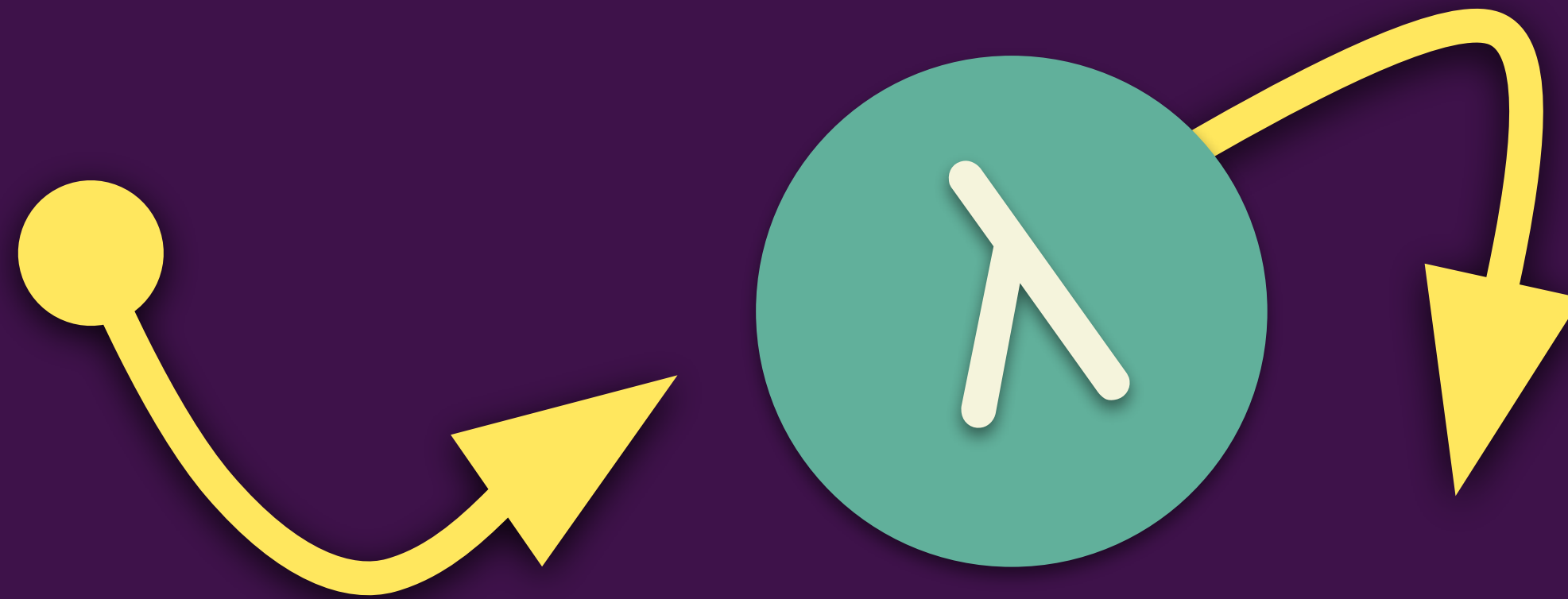
current



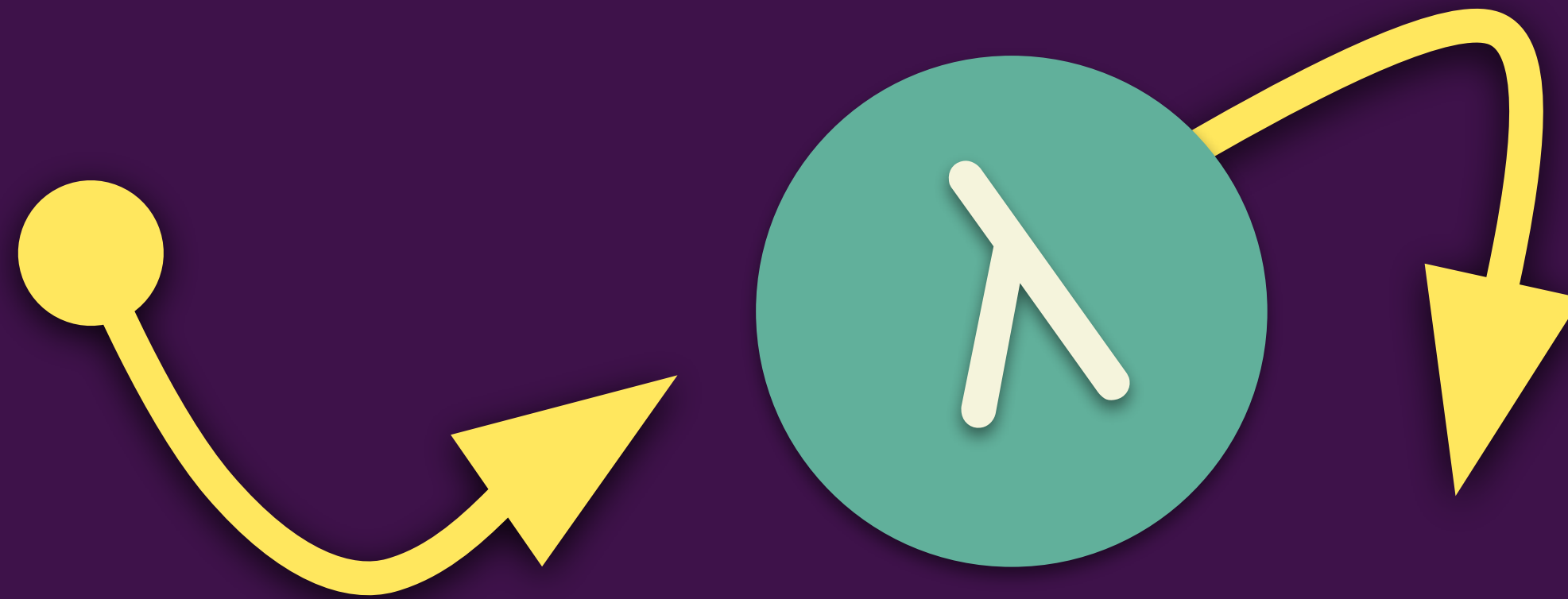
old



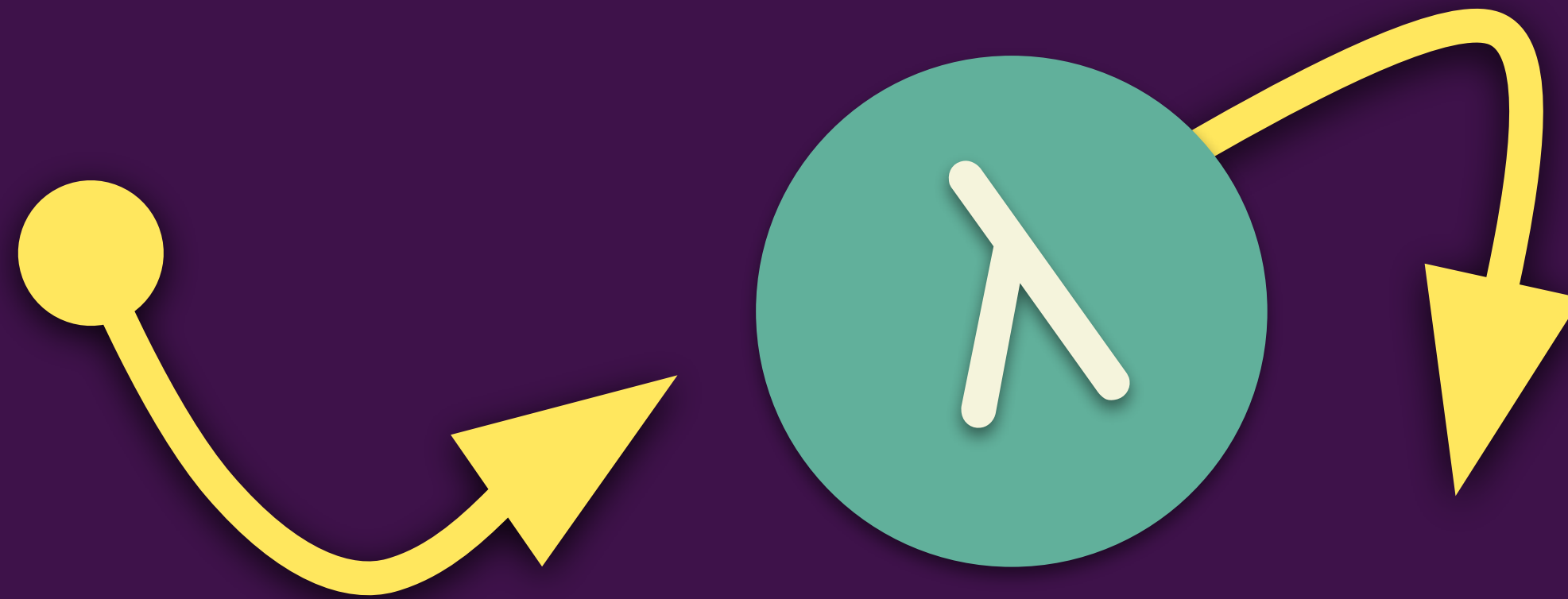
current



```
code_change(old_vsn,  
            old_state,  
            extra)
```

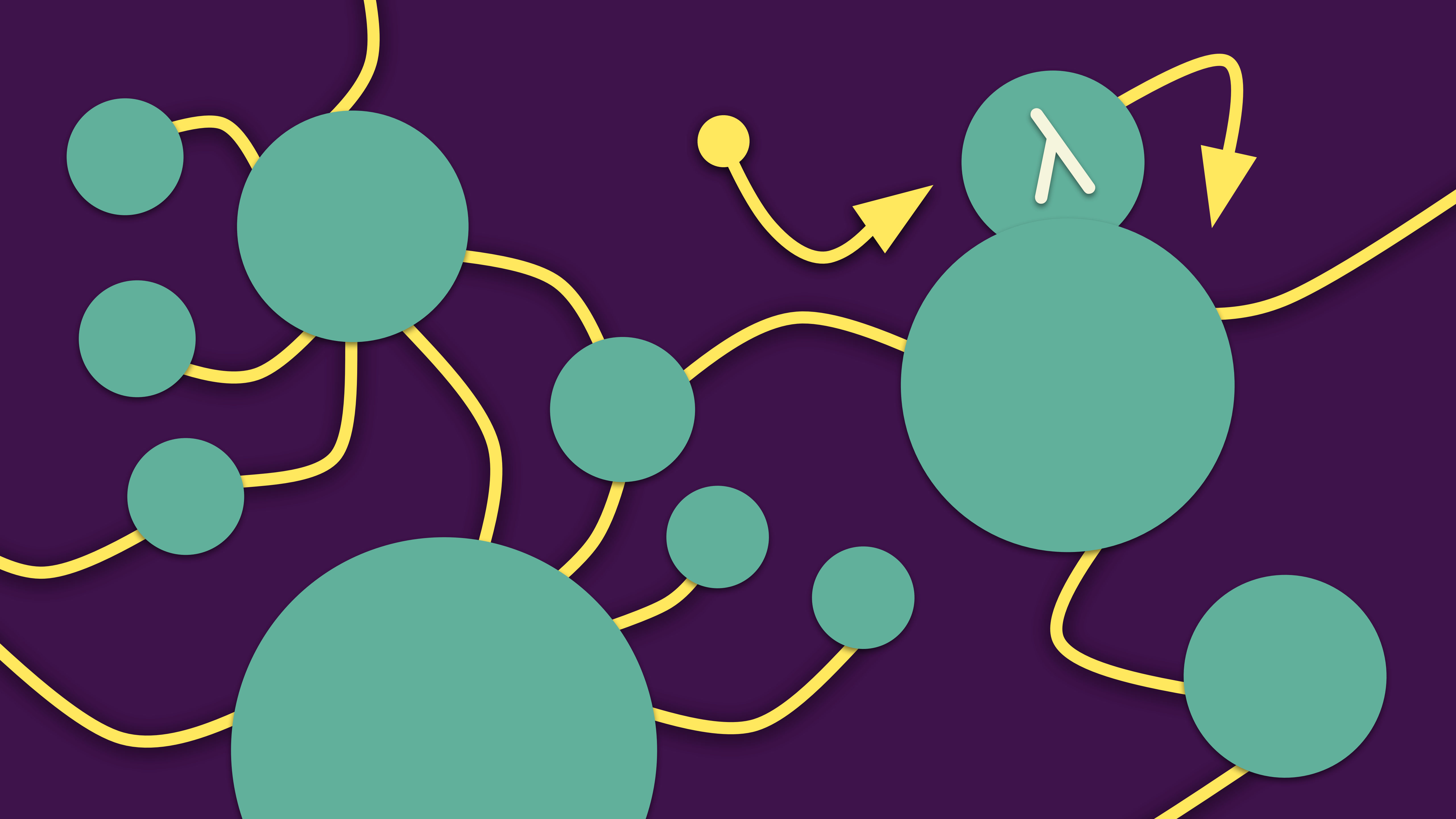


```
code_change({ :down, v },  
            old_state,  
            extra)
```



`{:ok, new_state}`

`{:error, reason}`





Release

bin/

erts-9.3/

lib/

releases/

releases/

hey.rel

RELEASES

0.0.1/

releases/

hey.rel

RELEASES

0.0.2/

relup

: *sys*tools

: release_handler

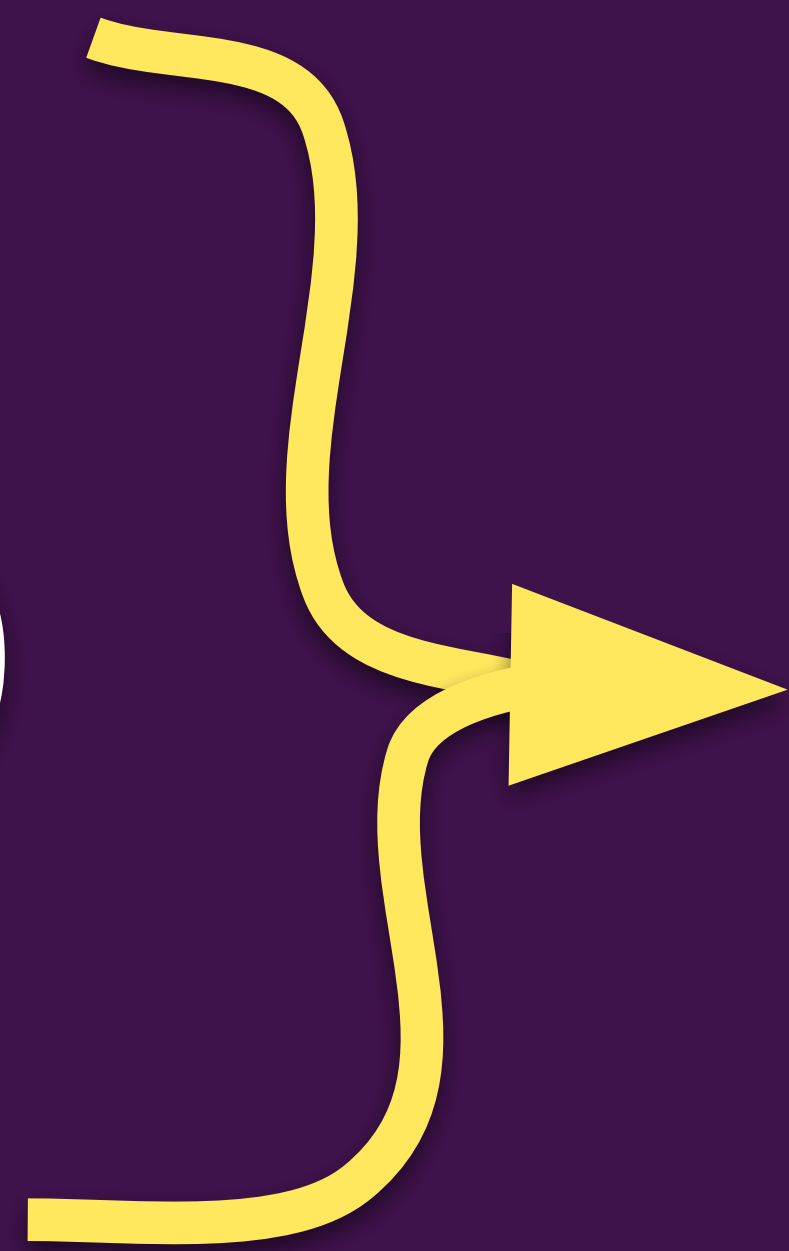
upgrade



*.appup

*.appup

*.appup



relup

```
{ "0.0.2",  
  [ { "0.0.1",  
      [ { load_module, 'Elixir.Hey', [] } ] ] },  
  [ { "0.0.1",  
      [ { load_module, 'Elixir.Hey', [] } ] ] } ] }.
```



```
{ "0.0.2",  
  [ { "0.0.1", [],  
      [ { load_object_code,  
          { hey, "0.0.2", [ '...' ] } } ],  
        point_of_no_return,  
        { load, { 'Elixir.Hey',  
                  brutal_purge, brutal_purge } },  
        { load, { ... } } ]  
  }  
  ...  
}
```

apply

restart_new_emulator

sync_nodes

Deploy ↗





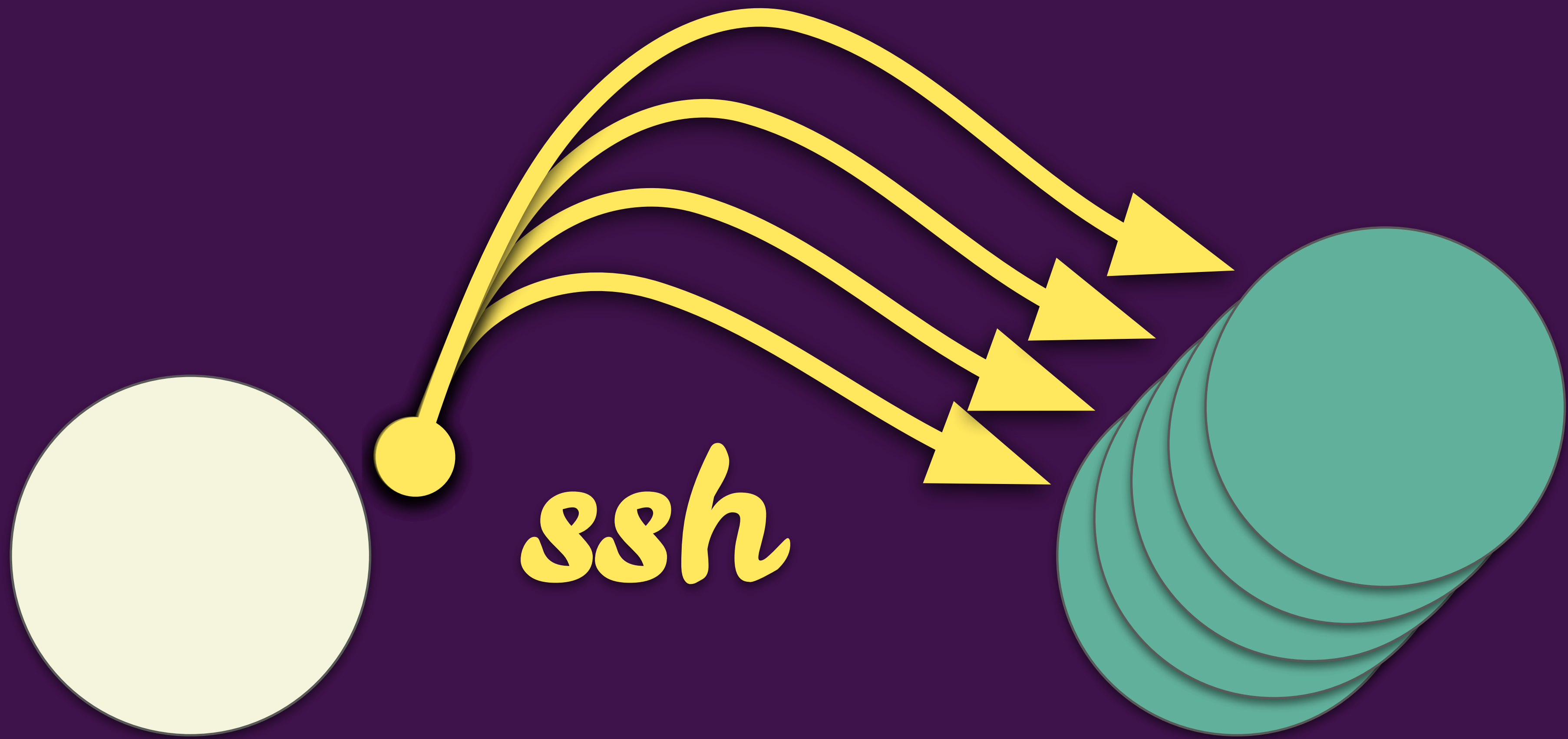
you

prod



you

prod



you

prod

erlexec:

Syntax error:

"(" unexpected

you

prod

Containers



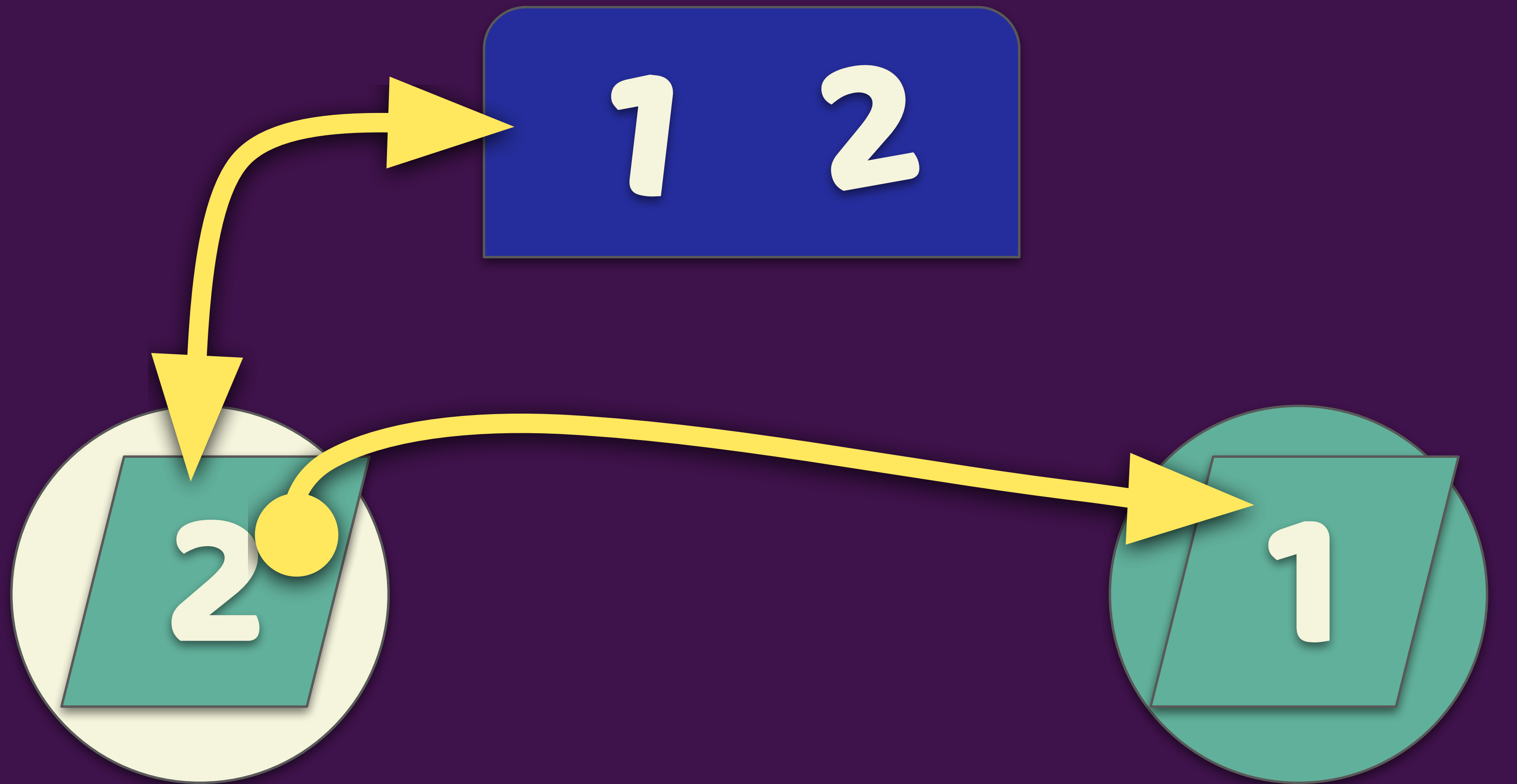
you

prod



you

prod



you

prod

Pitfalls



```
receive do
```

```
  :old_msg → :ok
```

```
after
```

```
  1000 → Mod.loop()
```

```
end
```

```
receive do
```

```
  :old_msg → :ok
```

```
after
```

```
  1000 → Mod.loop()
```

```
end
```

fn

fn

{m, f, a}



Mix Tasks



Migrations

`config.exs` `{:system, v}`

Config `init/2` `ENV`
`Vault?`

`vm.args`

`sys.config`

`REPLACE_OS_VARS`

*.appup Generator



1.2.3

1.2.3

c7ae2

1523874000-c7ae2

```
git rev-list \
-1 HEAD \
--format=%ct-%H -- \
apps/sub_umbrella
| grep -v ^commit
```

Autocommate



A driver wearing a white helmet with 'EDOX' branding and a blue team uniform is kneeling on the floor next to a Sauber Formula 1 car. The car features yellow and blue accents and 'P ZERO' tires. In the background, another team member in a blue uniform stands near a yellow wall. The scene is set in a professional racing garage.

Gigalixir



Distillery

&

Bootleg

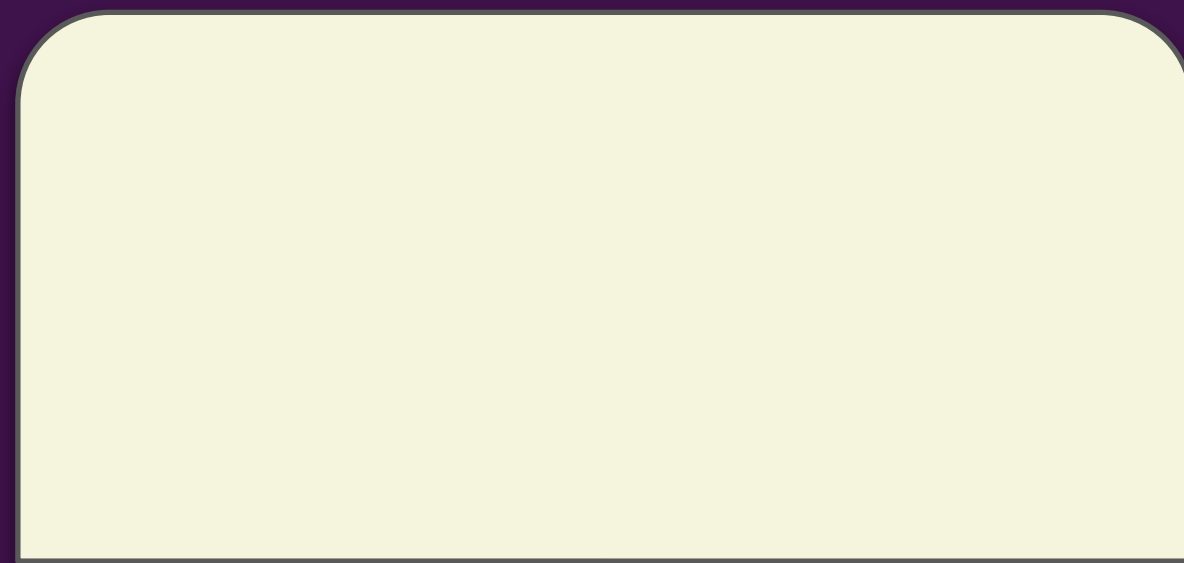
or

edeliver

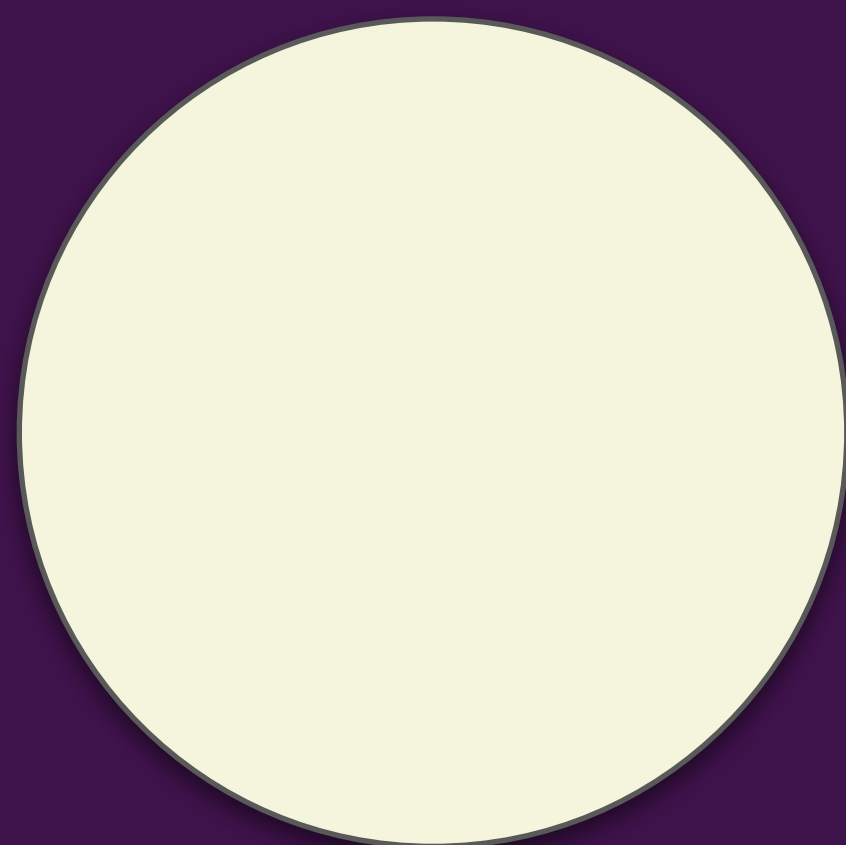


Gigalixir

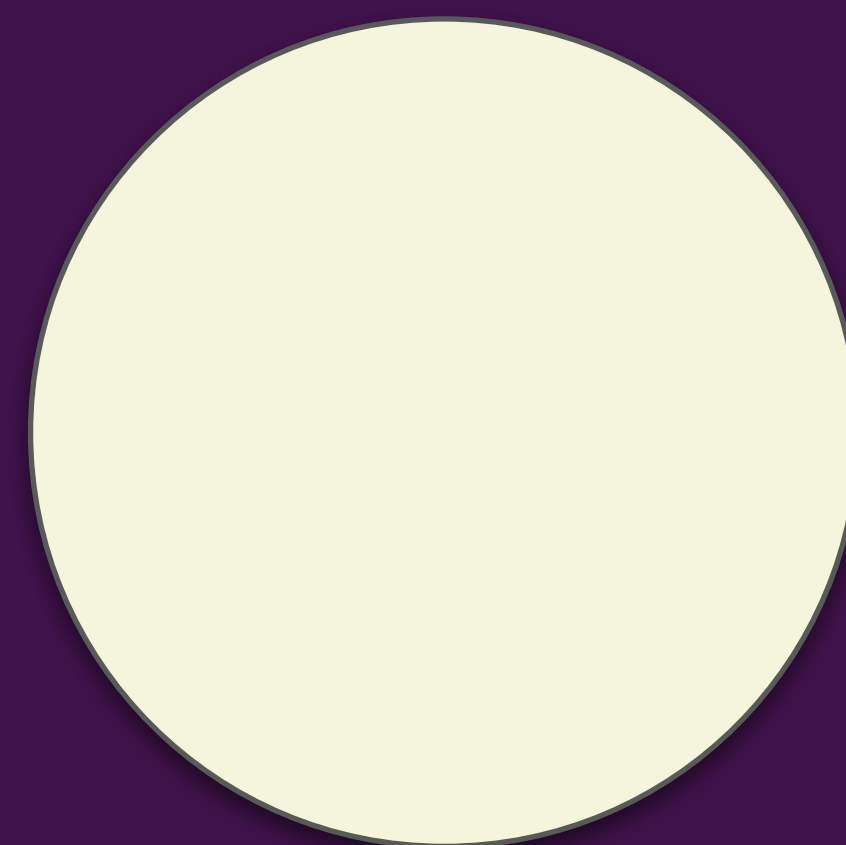
beamup[▲]



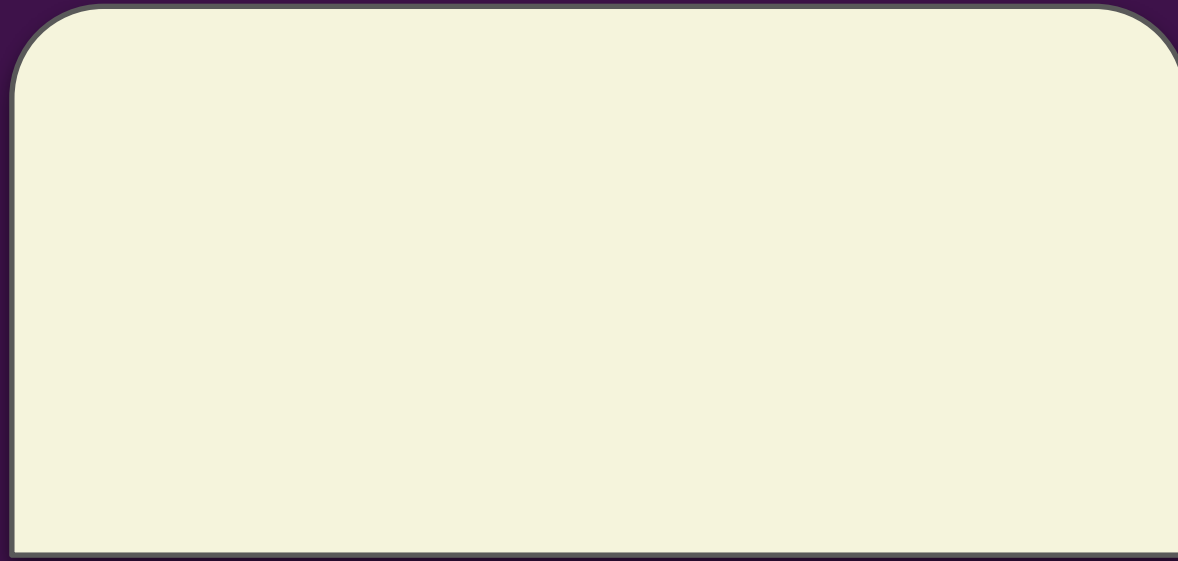
store



you



prod



store

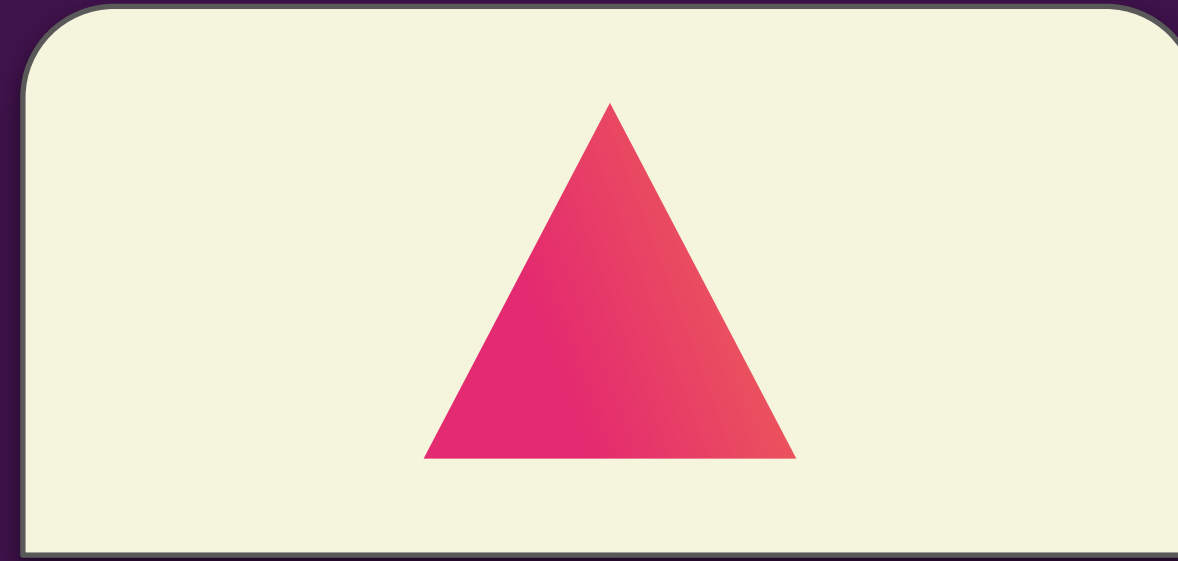
```
$ curl https://get.beamup.io/install | /bin/sh
```



you



prod



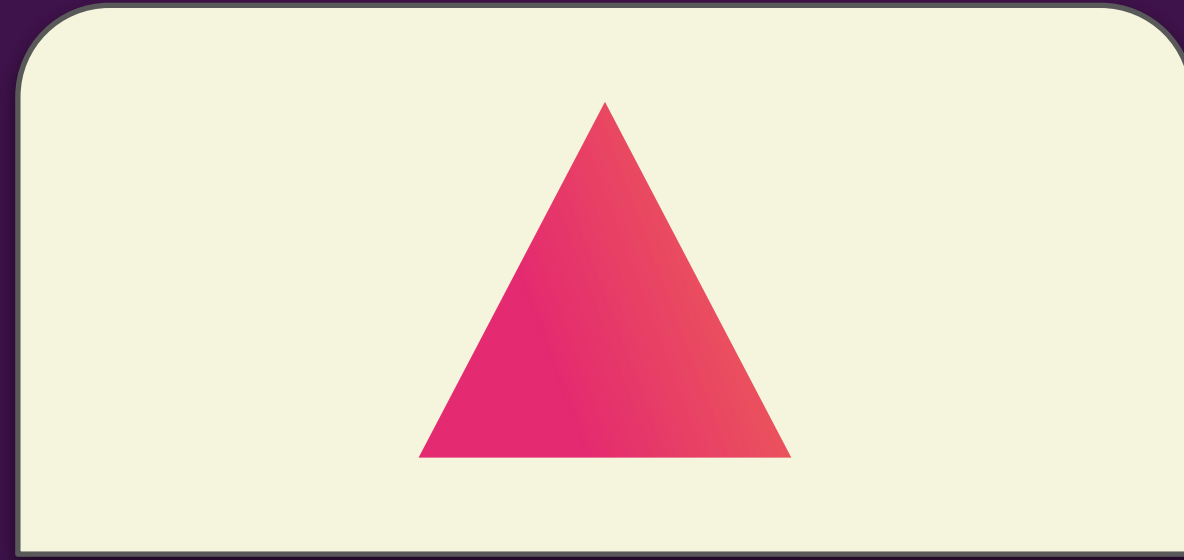
store



you



prod



\$ beamup store

```
BEAMUP_STORE=https://store
```

```
$ beamup build
```




```
BEAMUP_NODE_RELEASE=hey
```

```
BEAMUP_STORE=https://store
```

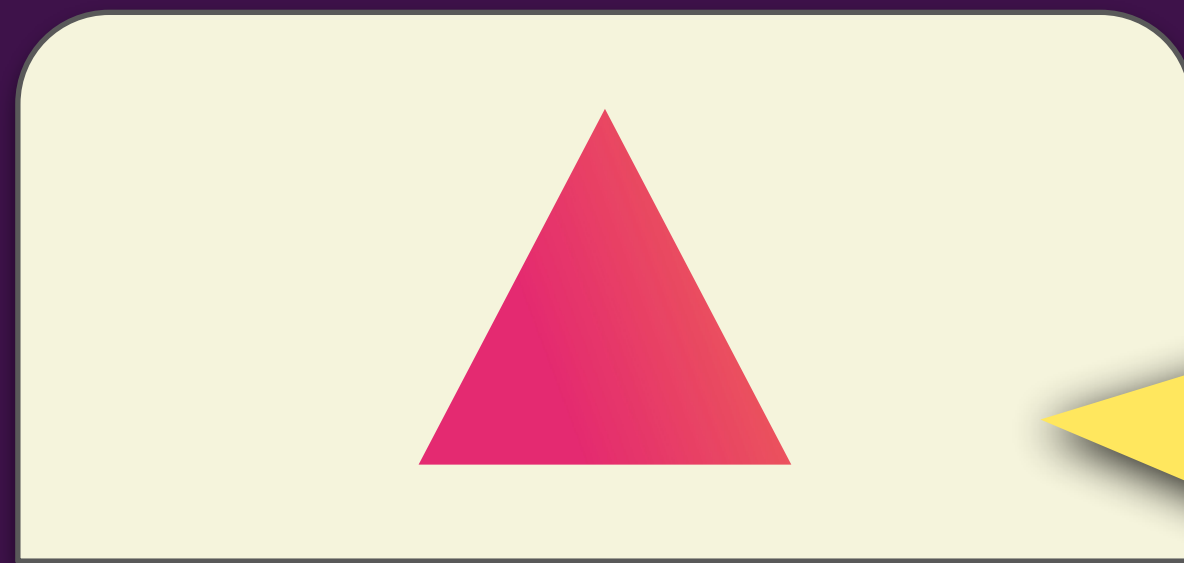
\$

```
beamup node
```





you



store



prod

A large, polished wooden distillation still, likely used for producing spirits, is the central focus of the image. The still is cylindrical with a conical top and is surrounded by various pipes and mechanical components. The background is slightly blurred, showing a distillery setting with other equipment and a window.

Distillery

&

Bootleg

or

edeliver

A driver wearing a white helmet with 'EDOX' branding is seated in a Sauber Formula 1 car. The driver is wearing a dark blue team shirt and is looking towards the front of the car. The car is on a track, and a crew member in a dark blue shirt is standing nearby. The background shows a yellow wall and some equipment.

Gigalixir

Thank
you

Questions



Thank
you



Photo Credits

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