

The Safest Headless Drupal 8 with Elm

Amitai Burtein // [.@amitaibu](#)

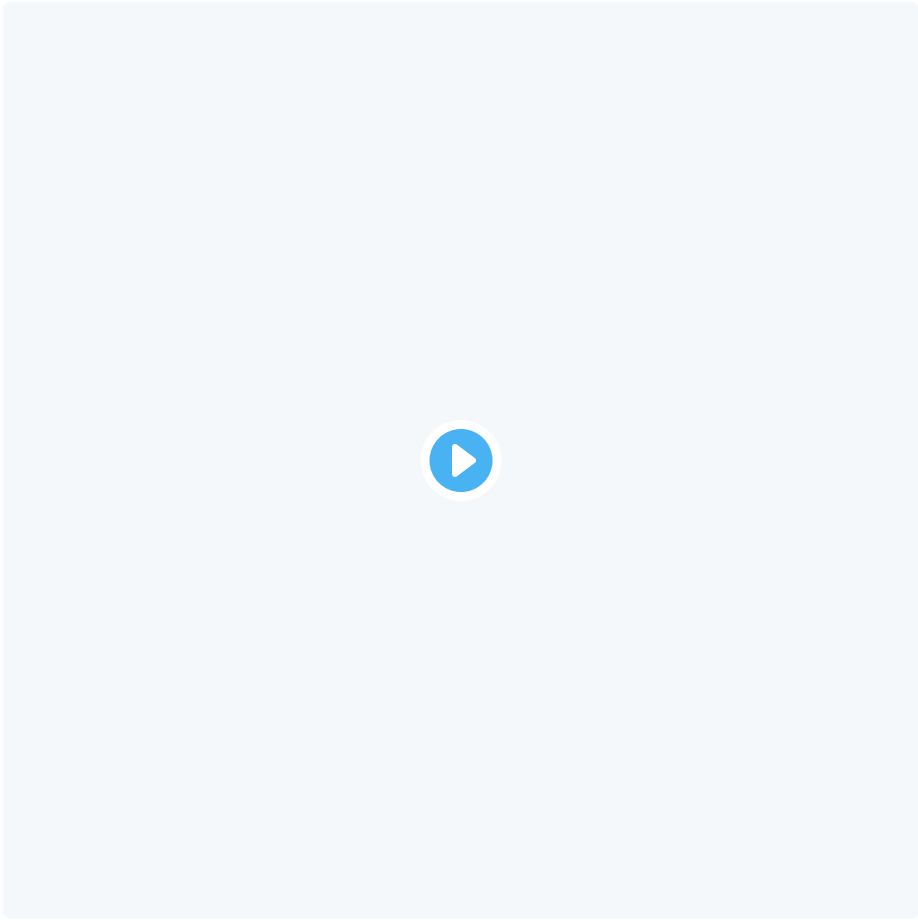


Amitai Burstein
@amitaibu



Spent a whole day in rural Rwanda, watching - in action - an [@elmlang](#) web-app with a [#Drupal](#) backend we've built for [@ihanganeproject](#).

No marketing landing pages, no sale funnels, no targeted ads. Just a web-app that helps provide a better health care to mothers and their babies



 158

12:20 AM - Nov 15, 2019

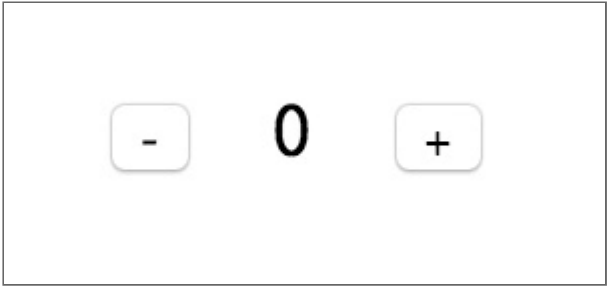


 45 people are talking about this



Elm

Generate JavaScript with great performance and no runtime exceptions



```
module Counter exposing (..)

import Html exposing (..)
import Html.Attributes exposing (..)
import Html.Events exposing (onClick)

-- MODEL

type alias Model =
    Int

emptyModel : Model
emptyModel =
    0

-- UPDATE

type Msg
    = Decrement
    | Increment

update : Msg -> Model -> ( Model, Cmd Msg )
update msg model =
    case msg of
```



Majorcan vegetable bake

easy

 15 min

VIEW RECIPE



Tomato and olive focaccia (TM)

 20 min

VIEW RECIPE



Pork fillet with cream and cider

 10 min

VIEW RECIPE

```
type alias Recipe =  
  { title: String  
    , image : String  
    , preparationTime: Int  
  }
```

Types 101


```
type Bool = False | True
```

```
type DifficultyLevel
  = Easy
  | Normal
  | Hard

type alias Recipe =
{ title: String
, image : String
, preparationTime: Int
, difficultyLevel : DifficultyLevel
}
```

If something can go wrong, it will

Murphy's law

```
type alias Recipe =  
  { title: String  
    , ..  
    , isCarnivore : Bool  
    , isVegetarian : Bool  
    , isVegan : Bool  
  }  
  
iAmConfused : Recipe  
iAmConfused =  
  { title = "A vegan steak?!"  
    , ..  
    , isCarnivore = True  
    , isVegetarian = False  
    , isVegan = True  
  }
```

```
type DietaryRestriction
  = Carnivore
  | Vegetarian
  | Vegan

type alias Recipe =
{ title: String
, ..
, dietaryRestriction : DietaryRestriction
}

thatIsBetter : Recipe
thatIsBetter =
{ title = "A vegan steak!"
, ..
, dietaryRestriction = Vegan
}
```




PREPARATION TIME : 15


SERVES : TODO <

Vegetable

Vegetarian

Vegan

Spanish


COOKING TIME : 25


DIFFICULTY : EASY

```
type alias Recipe =  
  { title: String  
  , ..  
  , preparationTime : Int  
  , cookingTime : ?  
  }
```

```
{ title: "foo"  
  , preparationTime: 10,  
  , cookingTime: null  
}
```

!empty ?

```
type alias Recipe =  
  { title: String  
  , ..  
  , preparationTime : Int  
  , cookingTime : Maybe Int  
  }  
  
iceCream : Recipe  
iceCream =  
  { title = "Ice Cream"  
  , ..  
  , preparationTime = 10  
  , cookingTime = Nothing  
  }  
  
pizza : Recipe  
pizza =  
  { title = "Pizza"  
  , ..  
  , preparationTime = 10  
  , cookingTime = Just 15  
  }
```



```
type PreparationTimes
  = NoPreparation
  | Preparation Int (Maybe Int)

type alias Recipe =
  { title: String
  , ..
  , preparationTimes : PreparationTimes
  }

iceCreamFromRefrigerator : Recipe
iceCreamFromRefrigerator =
  { title = "Ice Cream for lazy people"
  , ..
  , preparationTimes = NoPreparation
  }

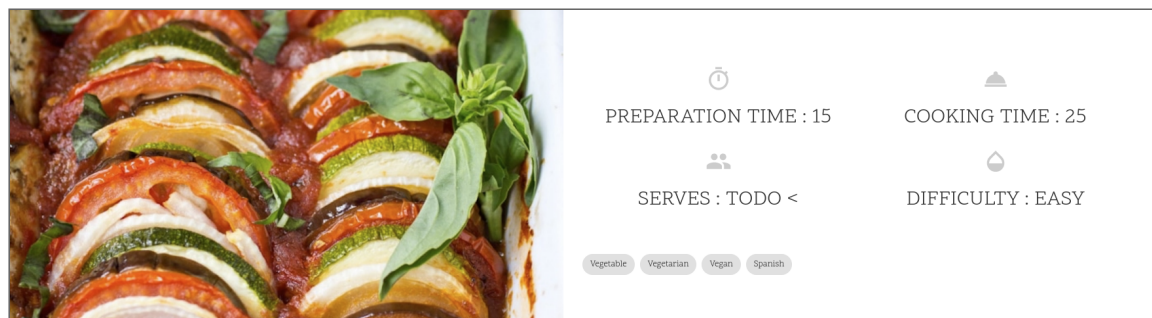
pizza : Recipe
pizza =
  { title = "Pizza"
  , ..
  , preparationTimes = Preparation 10 (Just 15)
  }
```

```
type PreparationTimes
  = NoPreparation
  | Preparation Int (Maybe Int)

viewPreparationTimes : Recipe -> Html msg
viewPreparationTimes recipe =
  case recipe.preparationTimes of
    NoPreparation ->
      text "No preparation required"

    Preparation time Nothing ->
      text "Takes " ++ (String.fromInt time) ++
        "minutes, but no cooking"

    Preparation time (Just cookingTime) ->
      text "Takes " ++ (String.fromInt time) ++
        " minutes and " ++ (String.fromInt cookingTime) ++
        " minutes for cooking"
```



How to model the states of an HTTP request?

```
type WebData a
  = NotAsked
  | Loading
  | Failure Http.Error
  | Success a

type alias Recipe =
  { title: String
  , ..
  , preparationTimes : WebData PreparationTimes
  }

viewPreparationTimes : Recipe -> Html msg
viewPreparationTimes recipe =
  case recipe.preparationTimes of
    Failure error ->
      text "Error loading"

    Success preparationTimes ->
      case preparationTimes of
        NoPreparation ->
          text "No preparation required"
```

What you'll need and how to make this dish

Ingredients

- ✓ 400g can peeled plum tomatoes
- ✓ chopped
- ✓ 1 tablespoon fresh oregano or marjoram
- ✓ chopped
- ✓ 3 tablespoon olive oil plus a little more to dress the dish with
- ✓ 6 fat Cloves of garlic (or to taste)
- ✓ half peeled and crushed
- ✓ the remaining half peeled and roughly chopped
- ✓ 1 aubergine
- ✓ sliced

```
type alias Ingredient =  
  { name: String  
    , price : Int  
  }  
  
type alias Recipe =  
  { title: String  
    , ..  
    , ingredients : List Ingredient  
  }
```

map & fold

```
viewIngredients : Recipe -> Html msg
viewIngredients recipe =
  ul
    []
    [ List.map
      ( ¥ingredient -> li [] [ text ingredient.name ] )
      recipe.ingredients
    ]

viewTotalPrice : Recipe -> Html msg
viewTotalPrice recipe =
  List.foldl
    ( ¥ingredient accum -> accum + ingredient.price )
    0
    recipe.ingredients
```


CLASS DASHBOARD

Add subject

Good Morning Mrs. Johnson!

14.0

MATHEMATICS

+ new board ⚡ instant lesson

LESSON BOARDSHISTORY

Trigonometry

▶ start live lesson

Algebra

▶ live lesson in progress

Sinuses

▶ start live lesson

ENGLISH

+ new board ⚡ instant lesson

LESSON BOARDSHISTORY

Present perfect

8th grade class B | 12.3.2016

▶ view lesson

Present perfect

8th grade class A | 15.3.2016

▶ view lesson

FRENCH

+ new board ⚡ instant lesson

LESSON BOARDSHISTORY

Trigonometry

▶ start live lesson

Algebra

▶ start live lesson

▶ edit board ▶ delete board

▶ start live lesson

Trigonometry

▶ start live lesson

Algebra

▶ start live lesson

▶ edit subject ▶ delete subject

+ new board ⚡ instant lesson

LESSON BOARDSHISTORY

Trigonometry

▶ start live lesson

Algebra

▶ start live lesson

Sinuses

▶ start live lesson

HISTORY

+ new board ⚡ instant lesson

LESSON BOARDS

Trigonometry

▶ start live lesson

Algebra

▶ start live lesson

Sinuses

▶ start live lesson

GEOGRAPHY

+ new board ⚡ instant lesson

LESSON BOARDSHISTORY

Present perfect

8th grade class A | 12.3.2016

▶ view lesson

Present perfect

8th grade class B | 15.3.2016

▶ view lesson

PHYSICS

+ new board ⚡ instant lesson

LESSON BOARDSHISTORY

Trigonometry

▶ start live lesson

Algebra

▶ start live lesson

Sinuses

▶ start live lesson

Trigonometry

▶ start live lesson

Algebra

▶ start live lesson

BIOLOGY

+ new board ⚡ instant lesson

LESSON BOARDS

Trigonometry

▶ start live lesson

Algebra

▶ start live lesson

Sinuses

▶ start live lesson

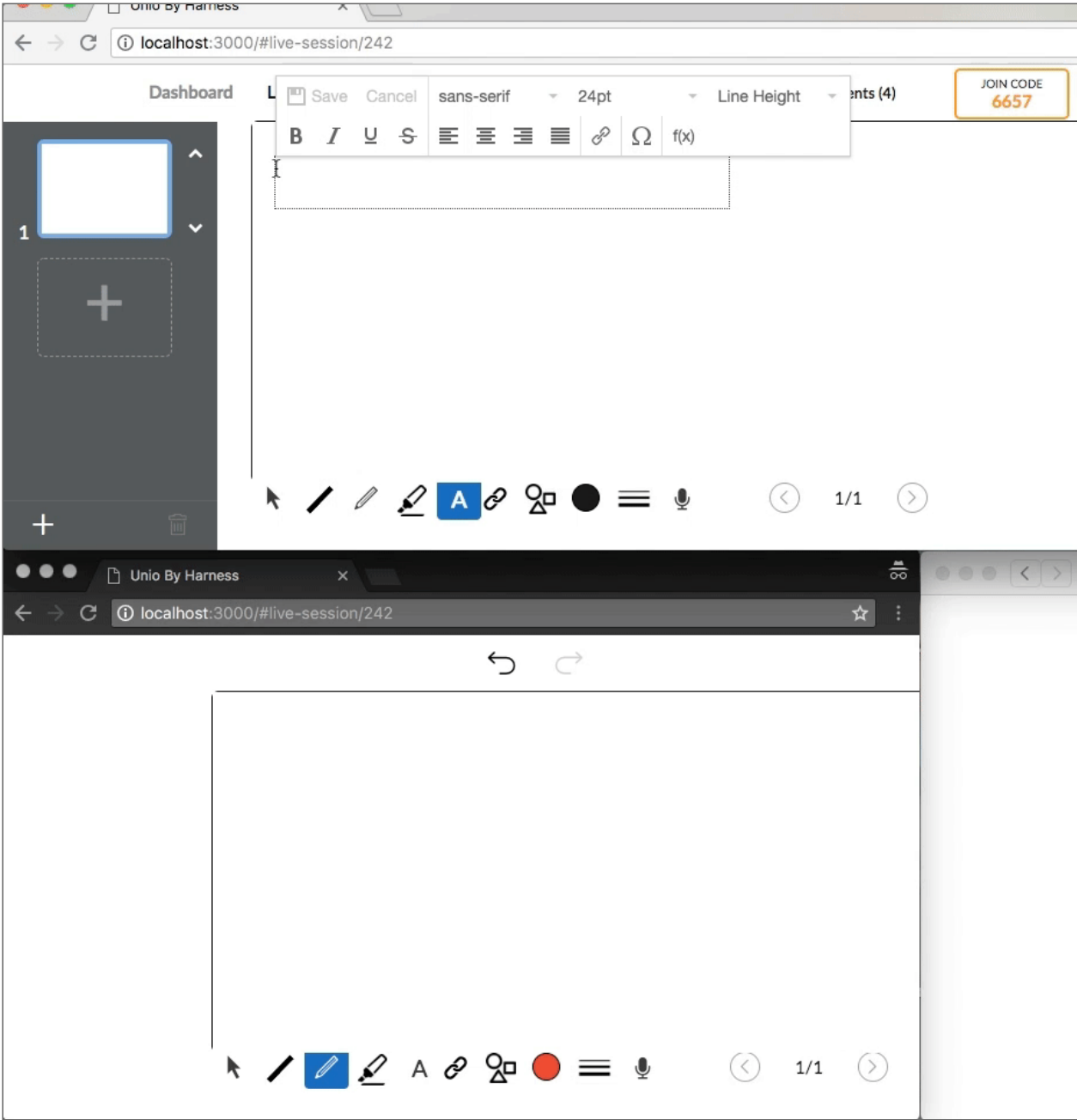
Unio

By Harness

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https://gizra-presentations.github.io/drupalcamp-tokyo-2019/##/

25/36



Sale
366. Auktion März 2018

Sale context: 366. Auktion März 2018. [Remove context](#)

[Home](#) > Bids

Bids

Enter bids

Lot	Bidder ID	Amount	Actions
			<button style="background-color: #d3d3d3; padding: 2px 10px;">✔ Save</button>

Pick a date

Pick a date

Lot #

Bidder ID #

Lot: 1 - 366 / März 2018 - 1 | Sold

Opening price
 Save

Make sure to save the opening price, before re-knock down.

By re-knocking down, the Bid server will re-calculate the winning Bid. If a winning bid is found, status will be set to Sold, otherwise to Unsold.

Lot: 2 - 366 / März 2018 - 2 | Sold

Status	Type	Amount	Created	Bidder	Bidder number	Authorized by
Accepted	Floor	160€	20 Mar 2018 - 10:06 AM	Reto Ott	95	Tobias Huylmans
Accepted	Mail	2€	22-Feb-2018--11:24 PM	Tobias-Huylmans	4103	Tobi HK
Accepted	Mail	2.553€	20-Feb-2018--9:01 PM	Tobias-Huylmans	4103	Tobi HK

[Collapse](#)

Lot: 3 - 366 / März 2018 - 3 | Sold

Status	Type	Amount	Created	Bidder	Bidder number	Authorized by
Accepted	Mail	350€	13 Mar 2018 - 4:52 PM	Adam Lander	7130	Alexandra Marx

MENU

DE

EN

HEINRICH KOHLER

Deutschland's erstes Briefmarken-Auktionshaus

CATALOGUE PART

Main catalogue (4449)

Baltic States Stamps and Postal History - The Dr. Matteo Lucibello Collection (1104)

Greek Territories - The Johann Ulrich Schmitt Collection (633)

Faroer Islands Postal History 1751-1948 - The Geoffrey Noer Collection (266)

Chile - The Martyn Cusworth Collection (232)

Kingdom of Saxony - The „Franco Envelopes“ - The Arnim Knapp Collection (191)

Du

(15

Ge

Co

Search text

Lot no

Go to page

Page 1/1364 >

1

LOT NO.

1

CONDITION

✉

CATALOGUE NO.

M P207

OPENING

100,00 €



MITLÄUFER-GANZSACHENKARTEN:
Österreichischer/Liechtensteinischer Zu
-5.IV.16" auf Express-Karte nach Vaduz
Ankunftsstempel, selten, ein Wert der 2
tadello

Ask about t

Download picture

Please Login

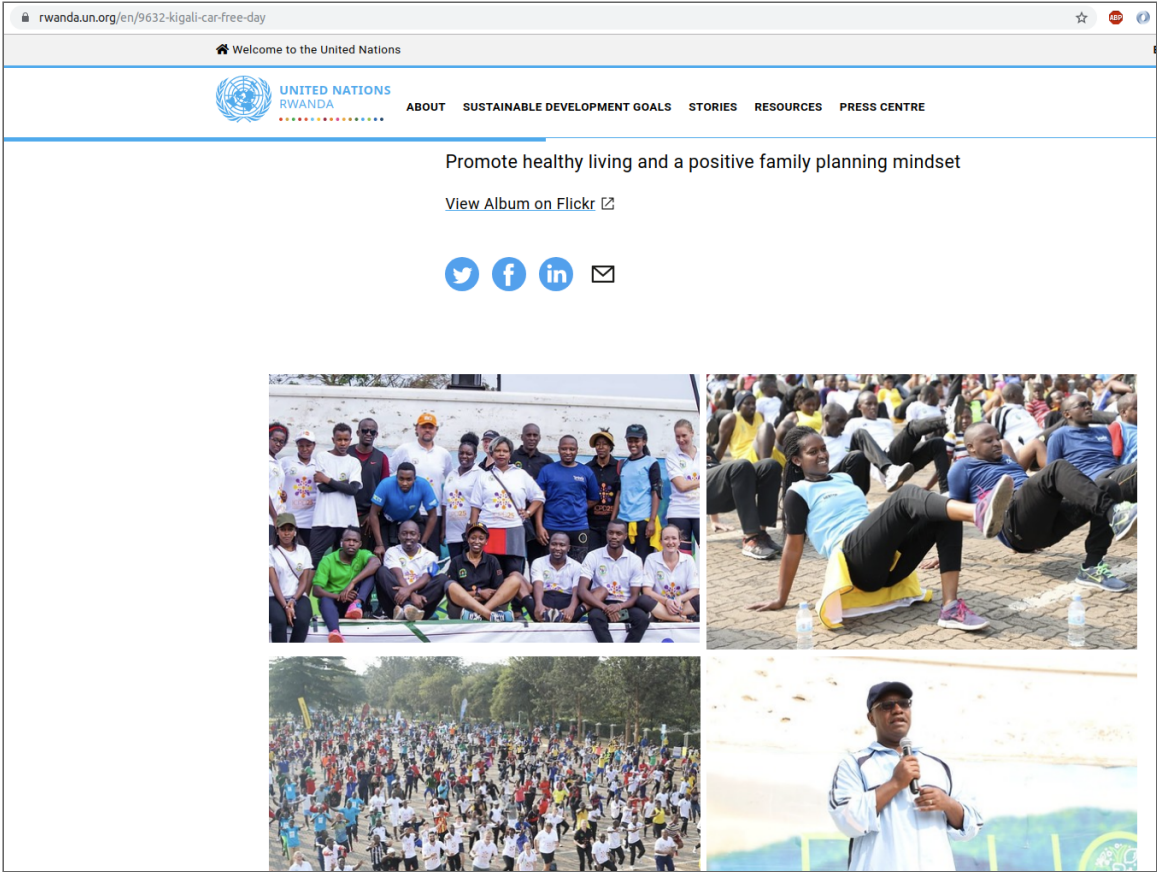
Login with GitHub

OR

demo

....

Login



```
$elements[$delta] = [  
  '#prefix' => !empty($prefix) ? $prefix : '',  
  '#suffix' => !empty($suffix) ? $suffix : '',  
  '#markup' => "<div $mode id='$suuid' class='elm-flickr-gallery' url='$url'/>$url</div>",  
  '#attached' => [  
    'library' => [  
      'undg_photo_story/undg_photo_story',  
    ],  
  ],  
];  
}  
  
return $elements;
```

```
/**
 * @file
 * Defines the behavior of the elm flickr gallery.
 */

(function ($, Drupal) {

  'use strict';

  /**
   * Attaches the behavior of the elm flickr gallery.
   */
  Drupal.behaviors.elmFlickrGallery = {
    attach: function (context, settings) {
      let apps = document.getElementsByClassName("elm-flickr-gallery");
      let elmApps = new Array;
      Array.prototype.forEach.call(apps, function (el) {
        elmApps.push(el.id);
      });
      elmApps.forEach(function (id) {
        let gallery = $('#'+ id, context)[0];
        let flags = {
          url: gallery.attributes['url'] !== undefined ? gallery.attributes['url'].nodeValue : "",
          count: gallery.attributes['count'] !== undefined ? parseInt(gallery.attributes['count'].nodeValue) : 50,
          appStyle: gallery.attributes['gallery'] !== undefined ? "gallery" : "thumbnail",
          href: gallery.attributes['href'] !== undefined ? gallery.attributes['href'].nodeValue : ""
        };
        Elm.Main.init({
          flags: flags,
          node: gallery
        });
      });
    }
  }
})(jQuery, Drupal));
```




PREPARATION TIME : 15


SERVES : TODO <


COOKING TIME : 25


DIFFICULTY : EASY