

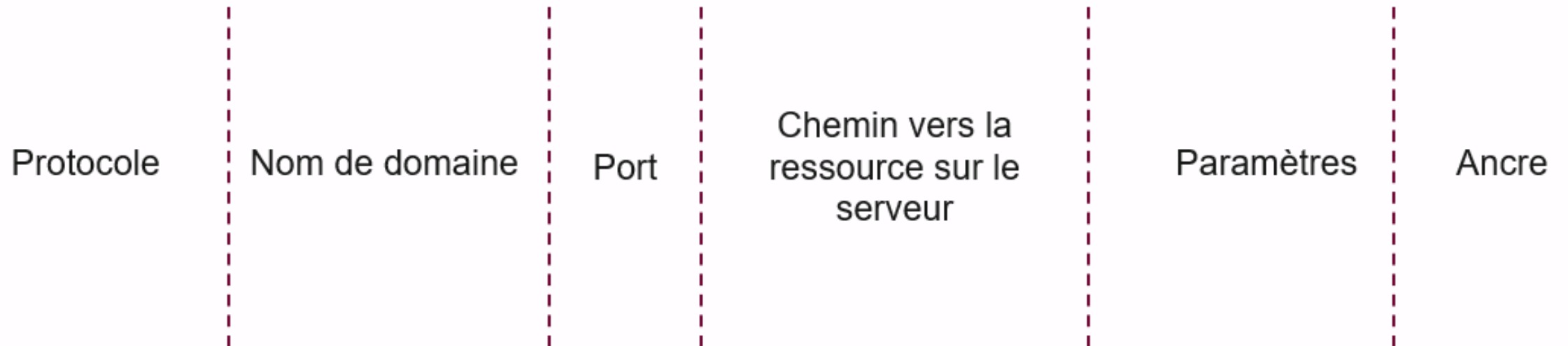


Interactions avec les utilisateurs: les formulaires et les erreurs

Les bases du Web

HTTP: URL

https://www.ina.fr:8080/accueil.html?locale=fr#foot



HTTP: méthodes

Méthode	Action
GET	Demande une représentation de la ressource spécifiée
POST	Agi sur la ressource
PUT	Ajoute une ressource
DELETE	Supprime la ressource
PATCH	Modifie une partie de la ressource

HTTP: codes d'erreur

HTTP Status Codes



HTTP: codes d'erreur

Code	Signification
200	<i>OK</i> Tout s'est bien passé
302	<i>Found</i> Document déplacé temporairement
401	<i>Unauthorized</i> Accès non permis
404	<i>Not found</i> La ressource n'existe pas
500	<i>Internal Servor Error</i> Erreur serveur générique
502	<i>Bad Gateway</i> Réponse trop longue à arriver

Des formulaires de recherche avec la méthode GET

Recherche simple fulltext

Recherche

Rechercher

Recherche simple fulltext: configuration de l'environnement

```
pip install flask-wtf
```

```
# .env  
  
...  
WTF_CSRF_ENABLE=True  
SECRET_KEY=j6SscbFozFFp0muAcNmMPP8cNv1CcpEd
```

Recherche simple fulltext: formulaire de la barre de navigation

```
<!-- templates/partials/formulaires/recherche_rapide.html-->  
  
<form class="form-inline" action="{{url_for('recherche_rapide')}}">  
  <input class="form-control" type="search" name="chaine"  
    placeholder="Recherche" aria-label="Recherche">  
  <button class="btn btn-outline-info" type="submit">Rechercher</button>  
</form>
```

```
<!-- templates/partials/conteneur.html-->  
  
<nav>  
  ...  
  <div align="right">{% include "partials/formulaires/recherche_rapide.html" %}</div>  
</nav>
```

Recherche simple fulltext: route

```
# app/routes/generales.py
...
from flask import request
@app.route("/recherche_rapide")
@app.route("/recherche_rapide/<int:page>")
def recherche_rapide(page=1):
    chaine = request.args.get("chaine", None)
    if chaine:
        resources = db.session.execute("""select a.id from country a
            inner join country_resources b on b.id = a.id
            inner join resources c on c.name = b.resource
            and (c.name like '%'+chaine+'%' or c.id like '%'+chaine+'%')
            """).fetchall()
    maps = db.session.execute("""select a.id from country a
        inner join country_map b on b.id = a.id
        inner join map c on c.name = b.map_ref
        and (c.name like '%'+chaine+'%' or c.id like '%'+chaine+'%')
        """).fetchall()
```

Recherche simple fulltext: route

```
resultats = Country.query.filter(
    or_(
        Country.name.ilike("%"+chaine+"%"),
        Country.type.ilike("%"+chaine+"%"),
        Country.Introduction.ilike("%"+chaine+"%"),
        Country.id.in_([r.id for r in resources] + [m.id for m in maps])
    )
).distinct(Country.name).order_by(Country.name).\
paginate(page=page, per_page=app.config["PAYS_PER_PAGE"])
else:
    resultats = None
return render_template("pages/resultats_recherche_pays.html",
    sous_titre= "Recherche | " + chaine, donnees=resultats,requete=chaine)
```

Recherche simple fulltext: affichage des résultats

```
<!--templates/pages/resultats_recherche_pays.html-->

...
{{pays.Introduction.replace(requete, '<span style="background-color: yellow;">
  {}
</span>'.format(requete)) | safe}}
...
<a href="{{ url_for('recherche_rapide', page=page_num, chaine=requete) }}" class="btn btn-dark">
...

```

Recherche simple fulltext: résultat

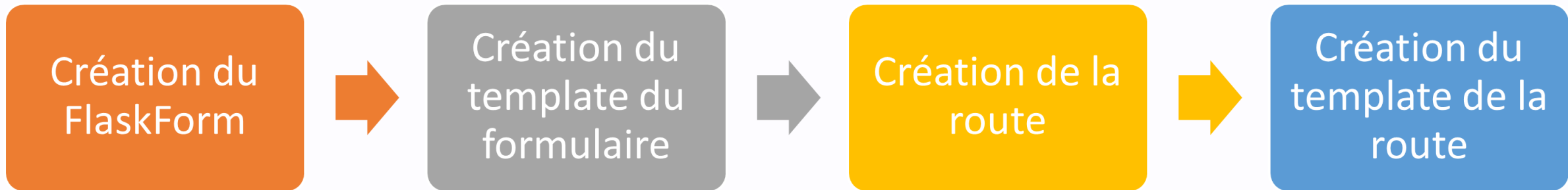
«
Cote d'Ivoire
Djibouti
Dominica
European Union
France
French Polynesia

[Voir les données de Cote d'Ivoire](#)

Various small kingdoms ruled the area of Cote d'Ivoire between the 15th and 19th centuries, when European explorers arrived and then began to expand their presence. In 1844, France established a protectorate. During this period, many of these kingdoms and tribes fought to maintain their cultural identities - some well into the 20th century. For example, the Sanwi kingdom - originally founded in the 17th century - tried to break away from Cote d'Ivoire and establish an independent state in 1969.

Cote d'Ivoire achieved independence from France in 1960 but has maintained close ties with France. The export and production of cocoa and foreign investment drove economic growth that led Cote d'Ivoire to become one of the most prosperous states in West Africa. In December 1999, a military coup overthrew the government. In late 2000, junta leader Robert GUEI held rigged elections and declared himself the winner. Popular protests forced him to step aside, and Laurent GBAGBO was elected. In September 2002, Ivoirian dissidents and members of the military launched a failed coup that developed into a civil war. In 2003, a cease-fire resulted in rebels holding the north, the government holding the

Des formulaires lisant les données avec POST



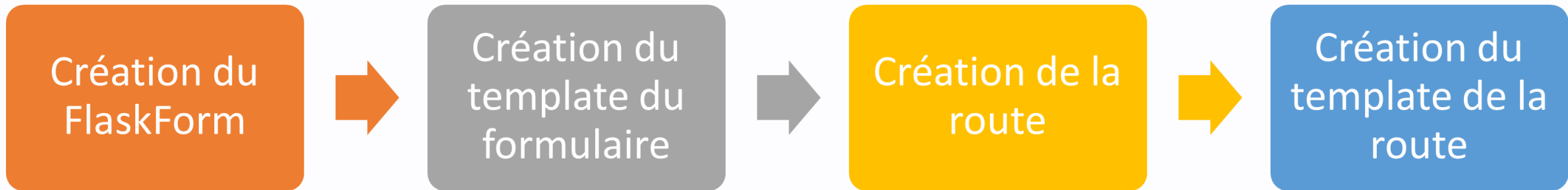
TD

Lien

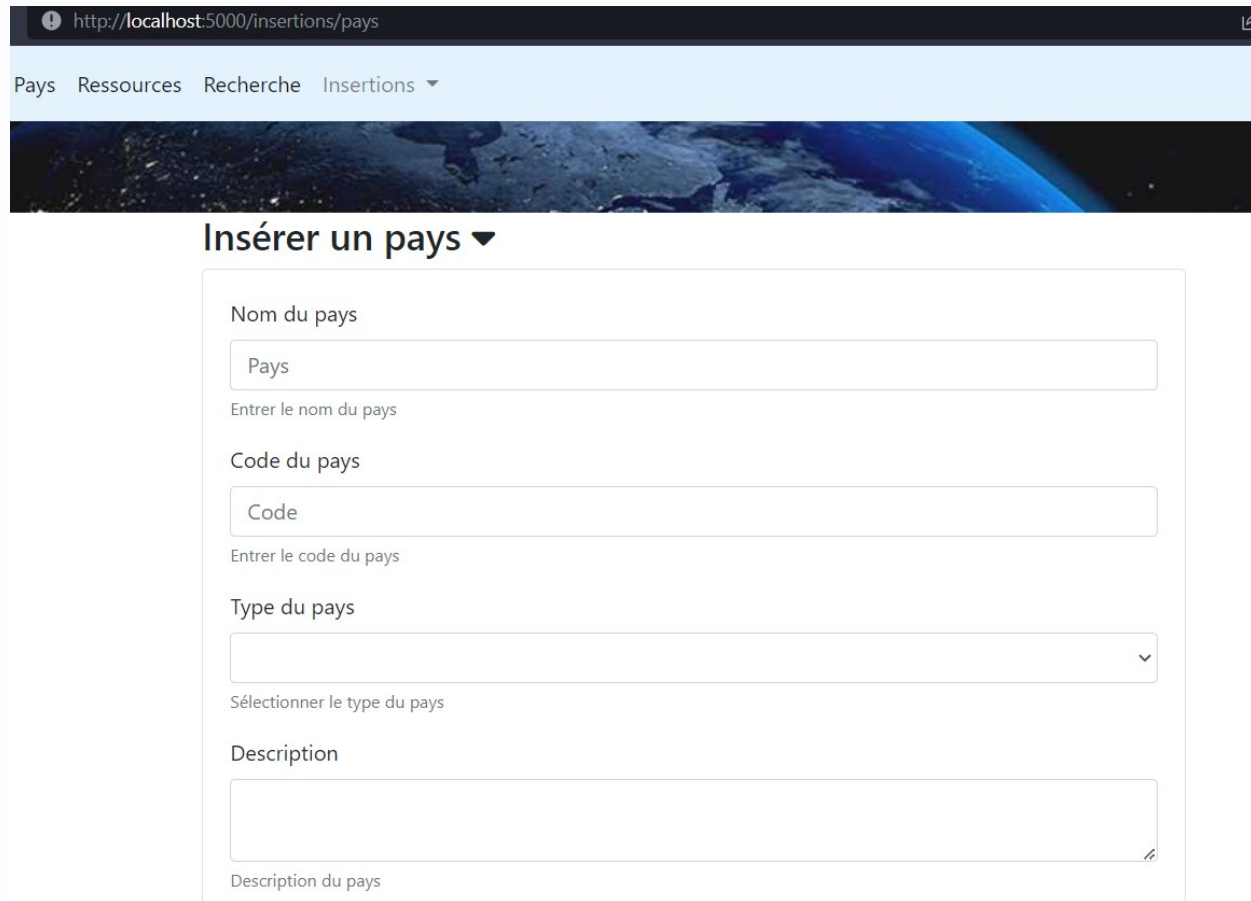
Des formulaires agissant sur les données avec POST

TD

Développer une route `/insertions/pays` qui permette d'ajouter un pays dans la base de données



TD: résultat attendu



The screenshot shows a web browser window with the address bar displaying `http://localhost:5000/insertions/pays`. The browser's navigation bar includes links for 'Pays', 'Ressources', 'Recherche', and 'Insertions'. Below the navigation bar is a header image of Earth from space. The main content area features a form titled 'Insérer un pays' with the following fields:

- Nom du pays**: A text input field containing the placeholder text 'Pays'. Below it is the label 'Entrer le nom du pays'.
- Code du pays**: A text input field containing the placeholder text 'Code'. Below it is the label 'Entrer le code du pays'.
- Type du pays**: A dropdown menu with a downward arrow icon. Below it is the label 'Sélectionner le type du pays'.
- Description**: A text area with a placeholder icon in the bottom right corner. Below it is the label 'Description du pays'.

TD: résultat attendu

Sélectionner le type du pays

Description

Description du pays

Ressources possédées

- petroleum
- natural gas
- iron ore

Sélectionner une ou plusieurs ressources possédées par le pays

Continent d'appartenance

Sélectionner un continent

Insérer

Gestion des erreurs

try ... except ...

```
try:
    # bloc du code que l'on souhaite exécuter
    print("Tout va bien")
except Exception as e:
    # bloc de code à lancer lorsqu'une erreur survient dans le try
    print("Une erreur est survenue : " + e)
```

try ... except ...

```
# routes/insertions.py /insertions/pays

@app.route("/insertions/pays", methods=['GET', 'POST'])
def insertion_pays():
    form = InsertionPays()
    try:
        if form.validate_on_submit():
            ...
    except Exception as e :
        print(e)

    return render_template("pages/insertion_pays.html",
                           sous_titre= "Insertion pays" , form=form)
```

flash()

```
# routes/insertions.py /insertions/pays

...
from flask import render_template, request, flash

@app.route("/insertions/pays", methods=['GET', 'POST'])
def insertion_pays():
    form = InsertionPays()
    try:
        if form.validate_on_submit():
            ...
            flash("L'insertion du pays " + nom_pays + " s'est correctement déroulée", 'info')

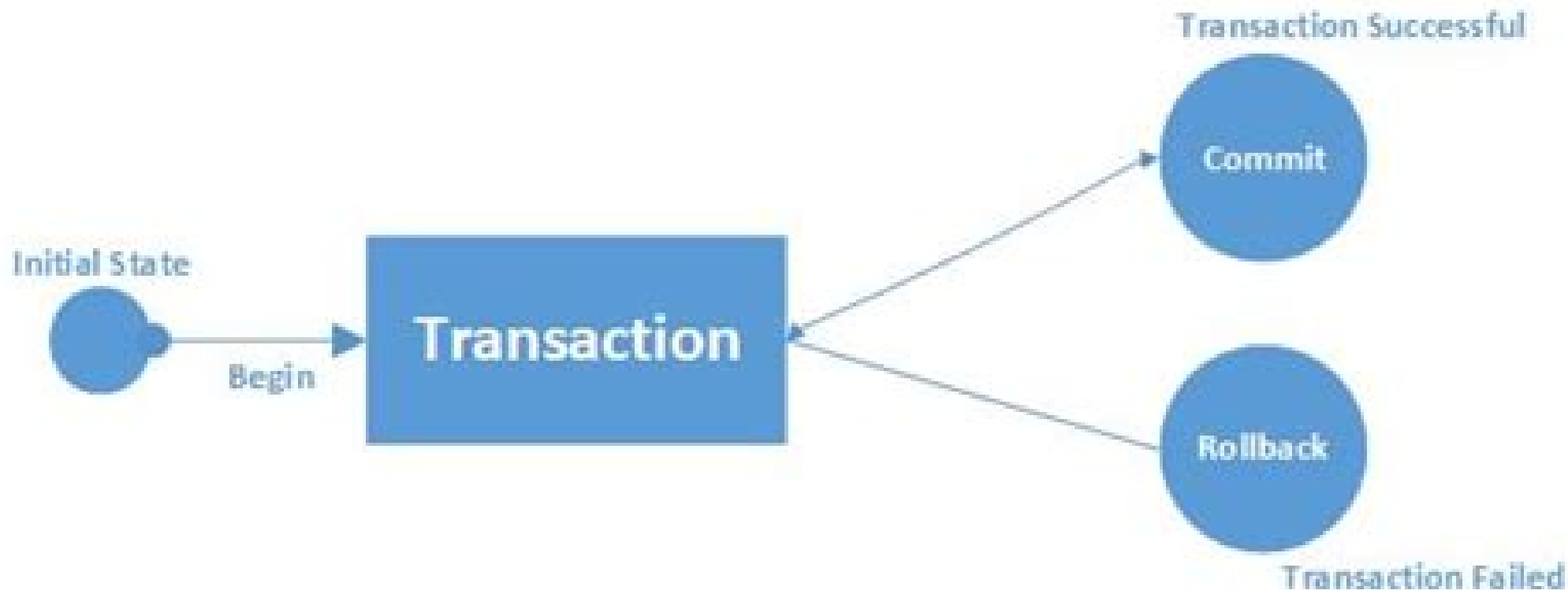
    except Exception as e :
        flash("Une erreur s'est produite lors de l'insertion de " + nom_pays + " : " + str(e), "error")
```


flash()

```
<!-- partials/conteneur.html -->
...
<div class="container">
  {% with messages = get_flashed_messages(with_categories=true) %}
  {% if messages %}
  <div class="row">
    <div class="col">
      {% for category, message in messages %}
      <div class="alert alert-{{category}}" role="alert">{{ message }}</div>
      {% endfor %}
    </div>
  </div>
  {% endif %}
  {% endwith %}
  <div class="row">
    <div class="col">
      {% block body %}{% endblock %}
    </div>
  </div>
</div>
...

```

ROLLBACK



ROLLBACK

```
# routes/insertions.py /insertions/pays
...
@app.route("/insertions/pays", methods=['GET', 'POST'])
def insertion_pays():
    form = InsertionPays()
    try:
        if form.validate_on_submit():
            ...
            db.session.add(nouveau_pays)
            db.session.commit()
    except Exception as e :
        db.session.rollback()

    return render_template("pages/insertion_pays.html",
        sous_titre= "Insertion pays" , form=form)
```

Redirections

```
# routes/generales.py /

@app.route("/")
def accueil():
    return redirect(url_for("pays"))

@app.route("/pays")
@app.route("/pays/<int:page>")
def pays(page=1):
    ...
```