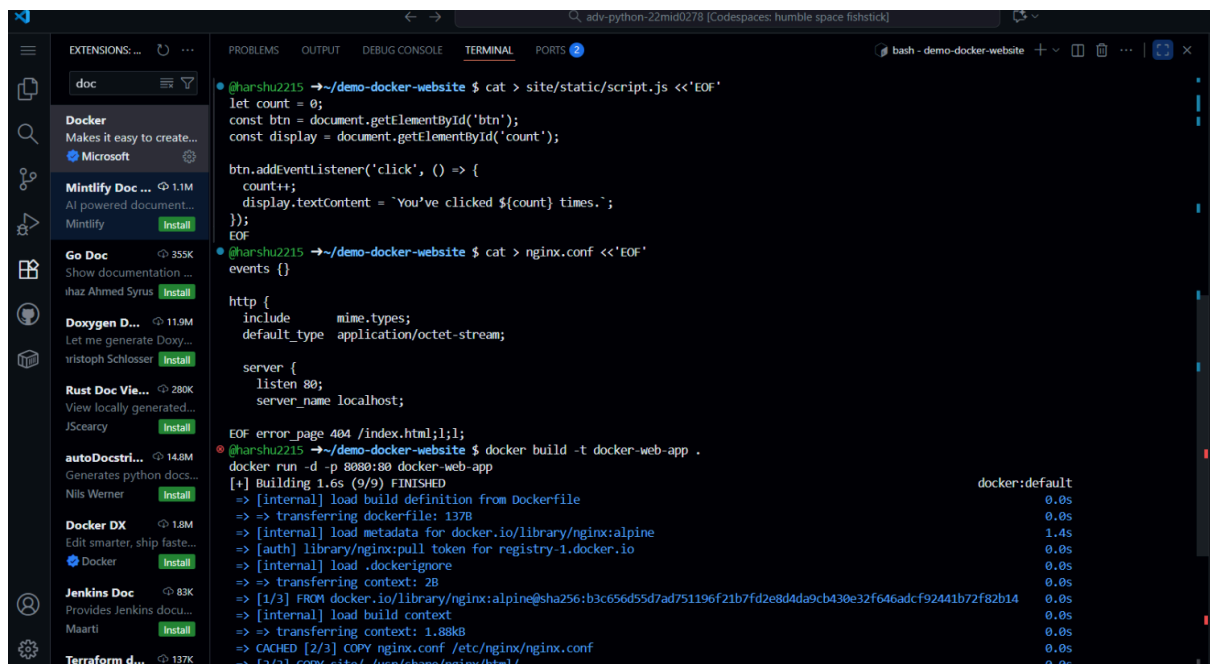# Advanced python programming
Docker application documentation

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Docker installation:

Python code :

```python
app.py > ...
   6  app.secret_key = os.environ.get('SESSION_SECRET', 'dev-secret-key')
   7  app.config["SQLALCHEMY_DATABASE_URI"] = os.environ.get("DATABASE_URL")
   8  app.config["SQLALCHEMY_ENGINE_OPTIONS"] = {
   9      "pool_recycle": 300,
  10      "pool_pre_ping": True,
  11  }
  12
  13  db.init_app(app)
  14
  15  def init_sample_data():
  16      if Destination.query.count() == 0:
  17          destinations_data = [
  18              {
  19                  'name': 'Bali',
  20                  'country': 'Indonesia',
  21                  'description': 'A tropical paradise known for beautiful beaches, rice terraces, a
      spiritual culture.',
  22                  'popular_activities': 'Surfing, Yoga, Temple visits, Diving',
  23                  'best_season': 'April to October',
  24                  'certifications': [
  25                      {
  26                          'name': 'PADI Open Water Diver',
  27                          'category': 'Scuba Diving'
```

```python
app.py > ...
 134
 135              destination = Destination(**dest_data)
 136              db.session.add(destination)
 137              db.session.flush()
 138
 139              for cert_data in certs_data:
 140                  cert = Certification(**cert_data, destination_id=destination.id)
 141                  db.session.add(cert)
 142
 143              for tour_data in tours_data:
 144                  tour = Tour(**tour_data, destination_id=destination.id)
 145                  db.session.add(tour)
 146
 147          db.session.commit()
 148
 149  with app.app_context():
 150      db.create_all()
 151      init_sample_data()
 152
 153  @app.route('/')
 154  def index():
 155      destinations = Destination.query.all()
```
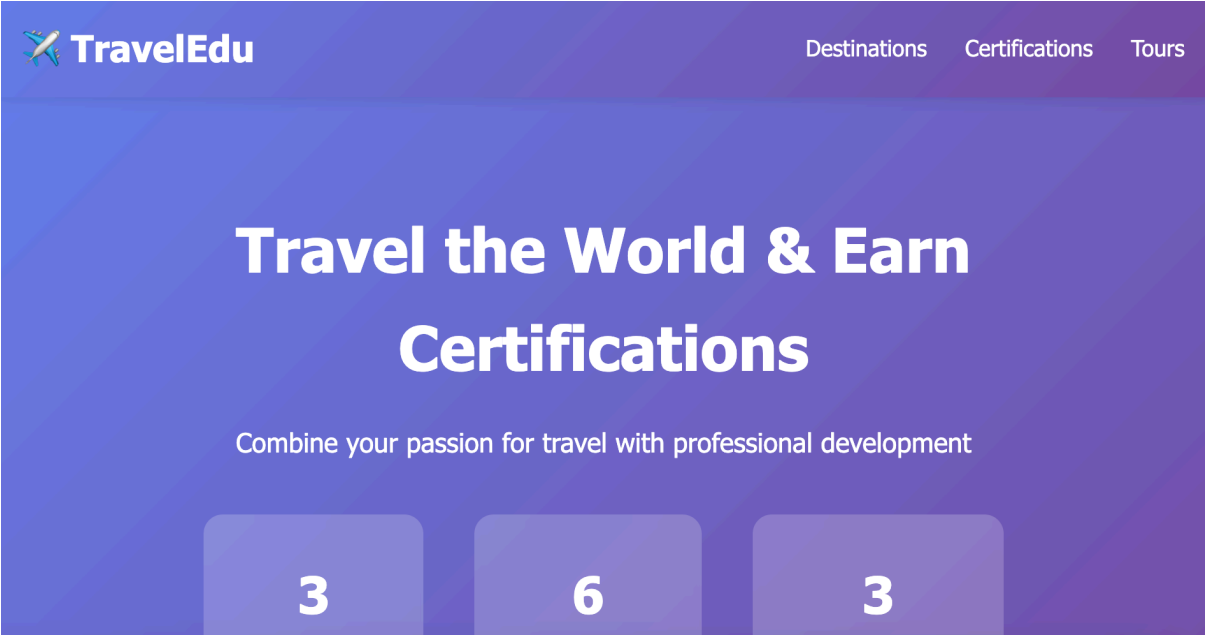
Html code:

```html
{% extends "base.html" %}

{% block content %}
<div class="hero">
    <div class="hero-content">
        <h1>Travel the World & Earn Certifications</h1>
        <p>Combine your passion for travel with professional development</p>
        <div class="stats">
            <div class="stat-card">
                <h3>{{ destinations|length }}</h3>
                <p>Destinations</p>
            </div>
            <div class="stat-card">
                <h3>{{ total_certifications }}</h3>
                <p>Certifications</p>
            </div>
            <div class="stat-card">
                <h3>{{ total_tours }}</h3>
                <p>Tours Available</p>
            </div>
        </div>
    </div>
</div>
```
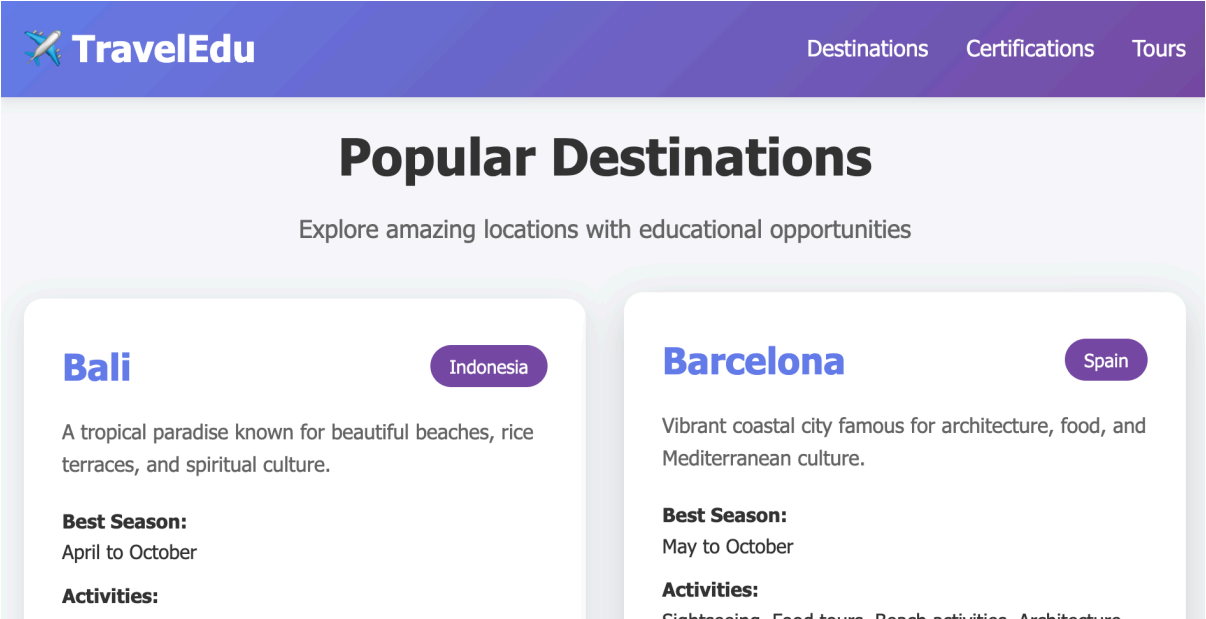
Css code:

```css
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
}

body {
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
    line-height: 1.6;
    color: #333;
    background-color: #f5f7fa;
}

.navbar {
    background: linear-gradient(135deg, #667eea 0%, #764ba2 100%);
    padding: 1rem 0;
    box-shadow: 0 2px 10px rgba(0,0,0,0.1);
    position: sticky;
    top: 0;
    z-index: 1000;
}

.nav-container {
```

Generated application:

Home page

Destinations page

Available certifications in chosen location:

TravelEdu

Destinations   Certifications   Tours

Available Certifications

Japanese Language Proficiency Test (JLPT)

Language

Provider: Tokyo Language School
Prepare for official Japanese language certification.

⏱ 8-16 weeks   💰 $1500.0   📋 None

Sushi Chef Certification

Culinary Arts

Provider: Tokyo Sushi Academy

Available tours in selected location:

TravelEdu

Destinations   Certifications   Tours

Home / Tokyo

Tokyo, Japan

Modern metropolis blending ancient traditions with cutting-edge technology.

📅 Best Time to Visit

March to May, September to November

🎯 Popular Activities

Temple visits, Shopping, Food experiences, Technology tours