

# Project Documentation: AI Abandoned Cart Call MVP (Test 1)

## 1. Overview

This project is a **FastAPI-based MVP** that uses AI to generate a polite call script for customers who abandoned their shopping cart and then makes an automated phone call via **Twilio**.

## 2. Files

### *main.py*

- **Purpose:** Main application script that:
  - Holds fake abandoned cart data.
  - Generates AI call script using **Groq**.
  - Initiates a call using **Twilio**.
  - Exposes a FastAPI endpoint /call-customer to trigger the call.
- **Key Sections:**

```
# 1. Load environment variables and initialize FastAPI
load_dotenv()
app = FastAPI()

# 2. Fake Abandoned Cart Data
FAKE_CART = {
    "customer_name": "Rahul Sharma",
    "phone": "+917499902809",
    "items": ["Wireless Headphones", "Bluetooth Speaker"],
    "cart_value": 4098,
    "discount_code": "SAVE10"
}

# 3. AI Script Generator using Groq
def generate_script(cart):
    client = Groq(api_key=os.getenv("GROQ_API_KEY"))
    prompt = f"Create a polite 20-second call script for customer {cart['customer_name']}..."
    response = client.chat.completions.create(
        model="llama-3.1-8b-instant",
        messages=[{"role": "user", "content": prompt}]
    )
```

```

    return response.choices[0].message["content"]

# 4. Twilio Call Function
def call_customer_twilio(message, phone):
    client = Client(os.getenv("TWILIO_ACCOUNT_SID"),
os.getenv("TWILIO_AUTH_TOKEN"))
    call = client.calls.create(
        to=phone,
        from_=os.getenv("TWILIO_NUMBER"),
        twiml=f"<Response><Say>{message}</Say></Response>"
    )
    return call.sid

# 5. API Endpoint to trigger call
@app.get("/call-customer")
def call_customer():
    script = generate_script(FAKE_CART)
    sid = call_customer_twilio(script, FAKE_CART["phone"])
    return {"status": "call started", "call_sid": sid, "script": script}

```

## .env

- **Purpose:** Store sensitive credentials and API keys securely.

```

# Twilio Credentials
TWILIO_ACCOUNT_SID=(ADD)

TWILIO_AUTH_TOKEN= (ADD)
TWILIO_NUMBER=+15752503566
TWILIO_TEST_NUMBER=+917499902809

# Groq API Key
GROQ_API_KEY="YOUR KEY"

```

## 3. How it works

1. Start the FastAPI server:

```
uvicorn main:app --reload --host 0.0.0.0 --port 8000
```

2. Call the endpoint in the browser or Postman:

GET <http://127.0.0.1:8000/call-customer>

3. The server:

- a. Uses **Groq** to generate a friendly call script.
- b. Uses **Twilio** to initiate the phone call.

4. Returns JSON response:

```
{  
  "status": "call started",  
  "call_sid": "CAxxxxxxxxxxxxxxxxxxxxxx",  
  "script": "Hello Rahul Sharma, ..."  
}
```

## 4. Notes

- Make sure the phone number in FAKE\_CART is verified in Twilio.
- Groq model used: "llama-3.1-8b-instant"
- Avoid committing .env to public repositories.