

main.py

```
from fastapi import FastAPI
from app.routers import anonymize

app = FastAPI(title="Anonify Phase 2")

app.include_router(anonymize.router, prefix="/api", tags=["Anonymize"])

@app.get("/")
async def root():
    return {"message": "Welcome to Anonify Phase 2!"}
```

routers/anonymize.py

```
from fastapi import APIRouter, UploadFile, File
from fastapi.responses import JSONResponse
from app.utils import anonymize_data, read_file

router = APIRouter()

@router.post("/anonymize")
async def upload_and_anonymize(file: UploadFile = File(...)):
    try:
        df = await read_file(file)
        anonymized_df = anonymize_data(df)
        return JSONResponse(content=anonymized_df.to_dict(orient="records"))
    except Exception as e:
        return {"error": str(e)}
```

utils.py

```
import pandas as pd
import camelot

async def read_file(file):
    filename = file.filename.lower()

    if filename.endswith(".csv"):
        return pd.read_csv(file.file)

    elif filename.endswith((".xls", ".xlsx")):
        return pd.read_excel(file.file)

    elif filename.endswith(".pdf"):
        temp_path = f"temp_{filename}"
        with open(temp_path, "wb") as f:
            f.write(await file.read())
        tables = camelot.read_pdf(temp_path, pages="all")
        df = pd.concat([t.df for t in tables], ignore_index=True)
        return df

    else:
        raise ValueError("Unsupported file type")

def anonymize_data(df: pd.DataFrame) -> pd.DataFrame:
    df_anonymized = df.copy()
    for col in df_anonymized.select_dtypes(include="object").columns:
        df_anonymized[col] = "REDACTED"
    return df_anonymized
```