BIL 481 – Deployment Plan

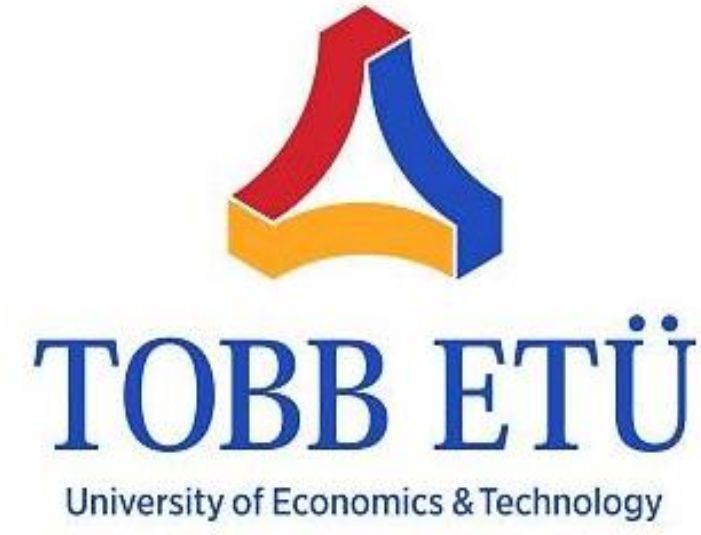

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Table of Contents:

Task Matrix

Section	Description	Contributor
1. Deployment Overview	Describes the general approach and tools used to deploy the project in a local environment.	**Kaan Arslan**
2. Deployment Process	Details the step-by-step procedure for preparing the environment, installing dependencies, and running the system.	**Kaan Arslan**
3. Configuration Plan	Specifies configuration files, key settings (such as API keys), model paths, and UI layout choices.	**Kaan Arslan**

1. Deployment Overview

The PickDish project is a desktop-based intelligent food suggestion system that uses YOLO for object detection and OpenAI's GPT model for generating recipes. The project was designed and deployed on a local Windows environment using Python 3.13 and PySimpleGUI for the user interface.

Key tools used:

- Python 3.13
- PySimpleGUI
- Ultralytics (YOLO model support)
- OpenAI API (GPT-4 Integration)
- dotenv (for managing API keys)

The system is deployed locally and does not require internet except for making API calls to OpenAI.

2. Deployment Process

1.Clone the repository:

```
git clone https://github.com/your-team/pickdish.git
```

2.Set up Python environment:

- Install Python 3.13 or compatible version
- (Optional) Create a virtual environment

3. Install dependencies:

```
pip install -r requirements.txt
```

Or manually

```
pip install PySimpleGUI ultralytics openai python-dotenv
```

4. Set up. env file in project root:

```
OPENAI_API_KEY=your-openai-key
```

5. Download and place YOLO model (best.pt) in /backend folder.

6. Run the application:

```
python frontend/GUI.py
```

3. Configuration Plan

- **.env file** is used for secure API key storage.
- **YOLO model path** is configured statically in yolotogpt.py:

```
model_path = os.path.join(os.path.dirname(__file__), 'best.pt')
```

- The GUI is configured using **PySimpleGUI themes** and layouts, and displays:
    - Image input
    - Progress bar
    - GPT-generated recipe suggestions
- OpenAI model used: gpt-4