

# VS Code Setup Guide - Animal Selection & File Upload App

## Prerequisites

- **Python 3.8+** installed on your system
- **VS Code** installed
- **Python extension** for VS Code (install from Extensions marketplace)

## Step-by-Step Setup

### 1. Open Project in VS Code

Bash

```
# Extract the project files to your desired location
# Open VS Code and use "File > Open Folder" to open the project directory
```

### 2. Set Up Python Virtual Environment

Open VS Code terminal ( `Ctrl+``` or `View > Terminal` ) and run:

Bash

```
# Create virtual environment
python -m venv venv

# Activate virtual environment
# On Windows:
venv\Scripts\activate
# On macOS/Linux:
source venv/bin/activate

# Install dependencies
pip install -r requirements.txt
```

### 3. Configure VS Code Python Interpreter

1. Press `Ctrl+Shift+P` (or `Cmd+Shift+P` on Mac)
2. Type "Python: Select Interpreter"

3. Choose the interpreter from your `venv` folder:

- Windows: `./venv/Scripts/python.exe`
- macOS/Linux: `./venv/bin/python`

## 4. Run the Application

In the VS Code terminal:

Bash

```
# Make sure virtual environment is activated  
python src/main.py
```

## 5. Access the Application

- Open your browser and go to: `http://localhost:5000`
- The application will be running with both animal selection and file upload features

## VS Code Features You Can Use

### Debug Configuration

- Set breakpoints in Python files by clicking on line numbers
- Use `F5` to start debugging
- The Flask app will run in debug mode automatically

### Extensions Recommendations

- **Python** (Microsoft) - Essential for Python development
- **Flask Snippets** - Helpful Flask code snippets
- **HTML CSS Support** - Better HTML/CSS editing
- **Live Server** - For frontend development (optional)

### File Structure in VS Code

Plain Text

```
animal-file-app-vscode/  
├── src/  
│   ├── main.py          # 🐍 Main Flask app - START HERE  
│   └── routes/
```

```

|   |   |   | animal_file.py # 🐾 Animal & file upload routes
|   |   |   | user.py       # 👤 User routes (template)
|   |   |   |
|   |   |   | models/
|   |   |   | | user.py      # 🗄 Database models
|   |   |   |
|   |   |   | static/
|   |   |   | | index.html   # 🌐 Frontend application
|   |   |   | | images/      # 🖼 Animal images
|   |   |   | | uploads/     # 📁 Uploaded files storage
|   |   |   |
|   |   |   | requirements.txt # 📦 Dependencies
|   |   |   |
|   |   |   | README.md       # 📖 Documentation
|   |   |   |
|   |   |   | VS_CODE_SETUP.md # 🚀 This file

```

## 🧪 Testing the Features

### Animal Selection

1. Click on Cat, Dog, or Elephant checkboxes
2. Beautiful animal images will appear
3. Only one animal can be selected at a time

### File Upload

1. Click on the upload area or drag & drop a file
2. File metadata will be displayed (name, size, type)
3. Files are saved in the `src/uploads/` folder

## 🔧 Development Tips

### Making Changes

- **Backend changes:** Modify files in `src/routes/` or `src/main.py`
- **Frontend changes:** Edit `src/static/index.html`
- **Styling:** CSS is embedded in the HTML file
- **JavaScript:** Also embedded in the HTML file

### Auto-Reload

The Flask app runs in debug mode, so it will automatically reload when you make changes to Python files.

## Adding New Features

- Add new routes in `src/routes/animal_file.py`
- Modify the frontend in `src/static/index.html`
- Add new static files in `src/static/`



## Troubleshooting

### Common Issues

1. **Port already in use:** Change port in `src/main.py` (line with `app.run()` )
2. **Module not found:** Make sure virtual environment is activated
3. **Permission errors:** Run VS Code as administrator (Windows) or check file permissions

### Checking if Everything Works

1. Terminal should show: `Running on http://127.0.0.1:5000`
2. Browser should load the application with purple gradient background
3. Animal selection should show images
4. File upload should display file information



## You're Ready!

Your Animal Selection & File Upload application is now ready to run in VS Code. Happy coding! 🚀