Pre-Build Checklist for Sales Dashboard EXE

Before running the build, verify all these items are in place.

System Requirements

☐ Docker Desktop installed and running
☐ At least 10 GB free disk space
☐ Windows 10/11 or Linux with Docker
☐ Internet connection (for downloading dependencies)

Project Files

Create this directory structure:

```
SalesDashboard/
├── app.py
├── Dockerfile
├── requirements.txt
├── build_windows_exe.bat
├── shapefiles/
│   ├── adm01.shp
│   ├── adm01.shx
│   ├── adm01.dbf
│   ├── adm01.prj
│   ├── adm01.sbn
│   ├── adm01.sbx
│   ├── adm01.cpg
│   ├── adm01.json
│   └── adm01.xml
```

Checklist

Files to Include

☐ **app.py** - Main application code

- Contains Streamlit dashboard

- Handles CSV uploads

- Converts Month numbers to names

- Creates geographic maps

☐ **Dockerfile** - Docker build configuration

- Sets up build environment

- Installs all dependencies

- Runs PyInstaller

☐ **requirements.txt** - Python dependencies

- All pip packages listed

- Specific versions pinned

☐ **build_windows_exe.bat** - Windows build script

- Runs Docker build

- Generates EXE file

Shapefile Files (All Required)

☐ **adm01.shp** - Shapefile geometry

☐ **adm01.shx** - Shapefile index

☐ **adm01.dbf** - Attribute database

☐ **adm01.prj** - Projection information

☐ **adm01.sbn** - Spatial index

- ☐ **adm01.sbx** - Spatial index
- ☐ **adm01.cpg** - Code page
- ☐ **adm01.json** - Optional GeoJSON version
- ☐ **adm01.xml** - Optional metadata

CSV Data Format

Your test CSV should have these columns:

- ☐ **Amount_(BDT)** - Numeric (sales amount)
- ☐ **Qty_(Pcs)** - Numeric (quantity pieces)
- ☐ **Qty_(KG)** - Numeric (quantity kilograms)
- ☐ **Year** - Numeric (e.g., 2023)
- ☐ **Month** - Numeric 1-12 (1=January, 12=December)
- ☐ **Brand** - Text (optional)
- ☐ **DivName** - Text (optional)
- ☐ **AdmDiv** - Text matching shapefile divisions (optional, for maps)

Example valid Month values:

- ☐ 1 = January
- ☐ 2 = February
- ☐ 3 = March
- ☐ 4 = April
- ☐ 5 = May
- ☐ 6 = June
- ☐ 7 = July
- ☐ 8 = August
- ☐ 9 = September
- ☐ 10 = October

- [ ] 11 = November
- [ ] 12 = December

Build Steps

- [ ] Navigate to project folder in Command Prompt
- [ ] Verify Docker is running (`docker --version`)
- [ ] Run `build_windows_exe.bat`
- [ ] Wait 20-40 minutes for build to complete
- [ ] Check `dist/` folder for `SalesDashboard.exe`

Testing After Build

- [ ] Double-click `SalesDashboard.exe`
- [ ] Wait for browser window to open (first run takes 10-15 seconds)
- [ ] Upload a test CSV file
- [ ] Verify data loads correctly
- [ ] Check if months display as names (January, February, etc.)
- [ ] Test generating a map
- [ ] Test downloading data

Distribution

- [ ] Copy only `SalesDashboard.exe` to target machines
- [ ] No additional files needed
- [ ] No Python installation required on target machines
- [ ] Users just double-click the EXE

Troubleshooting

If build fails:

- [ ] Check Docker is running
- [ ] Verify all files are in correct locations
- [ ] Delete `dist/` folder and retry
- [ ] Run `docker system prune` to free space
- [ ] Check available disk space (need 10GB+)

If EXE doesn't run:

- [ ] Check Windows Defender/Antivirus not blocking it
- [ ] Run from Command Prompt to see error messages
- [ ] Verify shapefile files are present in folder
- [ ] Check Windows 10/11 is fully updated

If CSV upload fails:

- [ ] Verify CSV is comma-separated
- [ ] Check column names match exactly
- [ ] Ensure Month column has numeric values 1-12
- [ ] Test with smaller CSV first (< 10,000 rows)

File Size Expectations

- `SalesDashboard.exe` size: 400-600 MB

- Installation size when run: 1-1.5 GB

- Runtime memory usage: 500MB-1GB

- Typical CSV data: Size depends on records

Additional Notes

- First run will be slower (extracting bundled files)

- Subsequent runs will be faster

- Temporary files stored in Windows %TEMP% folder

- Application uses port 8501 for web interface

- Multiple EXE instances can't run on same port

Ready to build? Run: `build_windows_exe.bat`