

# Migrion - Installation Guide

## System Requirements

- **Operating System:** Windows 10/11, macOS 10.14+, or Linux
- **Python:** 3.8 or higher
- **RAM:** 4GB minimum, 8GB recommended
- **Disk Space:** 500MB for application + dependencies
- **Internet:** Required for Gemini API calls

## Step-by-Step Installation

### 1. Verify Python Installation

```
python --version
```

Should show Python 3.8 or higher. If not installed:

- **Windows:** Download from [python.org](https://python.org)
- **macOS:** `brew install python3`
- **Linux:** `sudo apt-get install python3.8`

### 2. Navigate to Project Directory

```
cd "C:\Users\knand\OneDrive\Desktop\Final Project"
```

Or on macOS/Linux:

```
cd "/path/to/Final Project"
```

### 3. Install Dependencies

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

This will install approximately 20 packages including:

- Streamlit (web framework)
- Google Generative AI (Gemini)
- Pandas, NumPy (data processing)
- Plotly (visualization)
- PyMongo (database)
- And many more...

**Installation time:** 2-5 minutes depending on internet speed

#### Troubleshooting:

- If `pip` is not found, try `python -m pip install -r requirements.txt`
- On macOS/Linux, you might need `pip3` instead of `pip`
- If permission errors occur on Linux, use `sudo pip install -r requirements.txt`

## 4. Configure Environment Variables

### Create `.env` file:

#### Windows:

```
copy .env.example .env
```

```
notepad .env
```

#### macOS/Linux:

```
cp .env.example .env
```

```
nano .env
```

### Add your API keys:

```
GEMINI_API_KEY=your_actual_gemini_api_key_here
```

```
MONGODB_URI=mongodb://localhost:27017/
```

## 5. Get a Gemini API Key (FREE)

1. Visit <https://ai.google.dev/>
2. Click **"Get API Key"** button
3. Sign in with your Google account
4. Click **"Create API Key"**
5. Copy the generated key
6. Paste it into your `.env` file

**Note:** The free tier includes:

- 60 requests per minute
- No credit card required
- Perfect for this application

## 6. (Optional) Set Up MongoDB

MongoDB is only needed if you want to test the migration execution feature.

### Option A: Local MongoDB

1. Download from [mongodb.com/download-center/community](https://mongodb.com/download-center/community)
2. Install and start the MongoDB service
3. Use default URI: `mongodb://localhost:27017/`

### Option B: MongoDB Atlas (Cloud - FREE)

1. Sign up at [mongodb.com/cloud/atlas/register](https://mongodb.com/cloud/atlas/register)
2. Create a free cluster
3. Get your connection string
4. Add it to `.env` as `MONGODB_URI`

### Option C: Skip MongoDB

- You can use all features except migration execution
- Great for testing and exploration

## 7. Generate Example Data

```
python src/modules/data_generator.py
```

This creates synthetic data for Orange League Ventures Technologies:

- 5,000 customer records
- 1,200 projects
- 3,500 invoices
- 250 users
- 150 products

**Generation time:** ~5-10 seconds

## 8. Verify Installation

```
python verify_setup.py
```

This checks:

- Python version
- All dependencies
- Environment variables
- Directory structure
- Example data

**Expected output:**

```
Migrion - Setup Verification
```

```
[1/5] Checking Python Version...
```

```
✅ Python version: 3.x.x
```

```
[2/5] Checking Dependencies...
```

```
✅ streamlit
```

```
✓ pandas

... (all packages)

[3/5] Checking Environment Variables...

✓ .env file exists

✓ GEMINI_API_KEY is set

[4/5] Checking Directory Structure...

✓ src/agents/

... (all directories)

[5/5] Checking Data Files...

✓ Orange League data: 5 CSV files

SUCCESS: All checks passed!
```

## 9. Run the Application

### Option A: Using launcher script

Windows:

```
run_migrion.bat
```

macOS/Linux:

```
chmod +x run_migrion.sh

./run_migrion.sh
```

### Option B: Direct command

```
streamlit run app.py
```

### Expected output:

You can now view your Streamlit app in your browser.

Local URL: `http://localhost:8501`

Network URL: `http://192.168.x.x:8501`

## 10. Access the Application

Open your browser and navigate to:

```
http://localhost:8501
```

## Post-Installation

### First-Time Setup

#### 1. Try the Demo:

- Go to Home page
- Click "Try Demo" tab
- Load "Orange League Ventures Technologies"
- Explore all features

#### 2. Configure Your Project:

- Go to "Project Intake"
- Fill in your organization details

- Generate a migration plan

### 3. Upload Your Data:

- Go to "Data Quality"
- Upload your CSV files
- Analyze data quality

## Troubleshooting

### Common Issues

#### 1. "streamlit: command not found"

**Solution:**

```
python -m streamlit run app.py
```

Or reinstall Streamlit:

```
pip install --upgrade streamlit
```

#### 2. "ModuleNotFoundError: No module named 'src'"

**Solution:** Make sure you're in the correct directory

```
cd "C:\Users\knand\OneDrive\Desktop\Final Project"
```

#### 3. "GEMINI\_API\_KEY is not set"

**Solution:** Check that:

1. `.env` file exists in project root
2. `GEMINI_API_KEY=...` is set correctly
3. No quotes around the key

4. No spaces before/after the `=`

## 4. Import errors or "No module named..."

**Solution:**

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

## 5. Port 8501 already in use

**Solution:** Use a different port

```
streamlit run app.py --server.port 8502
```

## 6. Slow AI responses

**Solution:** This is normal for the free Gemini tier

- Responses typically take 2-5 seconds
- If timeout occurs, try again
- Check your internet connection

## Advanced Configuration

### Custom Port

Edit `.streamlit/config.toml`:

```
[server]

port = 8502 # Change to your desired port
```

### Custom Theme

Edit `.streamlit/config.toml` to change colors:



```
[theme]
```

```
primaryColor="#2E5EAA" # Change this
```

```
backgroundColor="#0E1117" # And this
```

## Increase Gemini Timeout

Edit `src/agents/gemini_agent.py` :

```
GEMINI_TIMEOUT = 30 # Increase from default
```

## Updating

To update Migrion to the latest version:

```
git pull # If using git
```

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

## Uninstallation

To completely remove Migrion:

```
# Remove virtual environment (if using one)
```

```
deactivate
```

```
rm -rf venv
```

```
# Remove project directory
```

```
rm -rf "Final Project"
```

```
# Uninstall packages (optional)

pip uninstall -r requirements.txt -y
```

## Getting Help

If you encounter issues:

1. Check the [README.md](#) for detailed documentation
2. Review [QUICKSTART.md](#) for quick tips
3. Run `python verify_setup.py` to diagnose issues
4. Check the `logs/` directory for error logs

## Next Steps

After successful installation:

1. Read the [QUICKSTART.md](#)
2. Try the demo datasets
3. Explore all 9 pages
4. Upload your own data
5. Generate migration plans

**You're all set! Enjoy Migrion!**