

# Getting Started Guide

## Ape Framework - Getting Started Guide

### Introduction

Welcome to the Ape Framework! This guide will walk you through the initial setup and configuration of your new ASP.NET Core MVC application.

**Live Demo:** <https://Illustrate.net> **Repository:** <https://github.com/MikishVaughn/Ape>

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### Prerequisites

Before you begin, ensure you have the following installed:

- **.NET 10.0 SDK** or later
    - Download from: <https://dotnet.microsoft.com/download>
    - Verify installation: `dotnet --version`
  - **SQL Server**
    - LocalDB (included with Visual Studio) for development
    - SQL Server Express or full SQL Server for production
  - **Visual Studio 2022** or **VS Code** (recommended)
    - Visual Studio: Include “ASP.NET and web development” workload
    - VS Code: Install C# extension
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### Step 1: Clone the Repository

Open a terminal or command prompt and run:

```
git clone https://github.com/MikishVaughn/Ape.git
cd Ape
```

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### Step 2: Set Up the Master Encryption Key

The framework uses AES-256 encryption for storing sensitive credentials. You must set a master key before running the application.

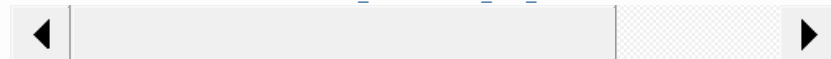
#### For Development (Windows)

##### Option A: Environment Variable

1. Open System Properties → Advanced → Environment Variables
2. Add a new User variable:
  - Name: `MASTER_CREDENTIAL_KEY_ILLUSTRATE`
  - Value: A secure string of 32+ characters (e.g., `YourSecure32CharacterKeyHere123!`)

##### Option B: User Secrets (Recommended for Development)

```
cd Ape
dotnet user-secrets init
dotnet user-secrets set "MASTER_CREDENTIAL_KEY_ILLUSTRATE" "YourSecure32Ch
```



#### For Production

Set environment variables at the server/hosting level:

Variable	Description
MASTER_CREDENTIAL_KEY_ILLUSTRATE	Encryption key (32+ characters)
DB_SERVER_ILLUSTRATE	Database server address
DB_NAME_ILLUSTRATE	Database name
DB_USER_ILLUSTRATE	Database username
DB_PASSWORD_ILLUSTRATE	Database password

## Step 3: Configure the Database

### Development (LocalDB)

The default configuration in appsettings.json uses LocalDB:

```
{
  "ConnectionStrings": {
    "DefaultConnection": "Server=(localdb)\\mssqllocaldb;Database=aspnet-A
  }
}
```



No changes needed for local development.

### Production

The application automatically constructs the connection string from environment variables when they are present. Set the DB\_\* variables listed above.

## Step 4: Run Database Migrations

The application auto-migrates on startup, but you can also run migrations manually:

```
cd Ape
dotnet ef database update
```

This creates all required tables: - Identity tables (users, roles, claims) - UserProfiles (extended user data) - SystemCredentials (encrypted credential storage) - EmailLogs (email audit trail) - PDFCategories & CategoryFiles (document library) - GalleryCategories & GalleryImages (photo gallery) - LinkCategories & CategoryLinks (links directory)

## Step 5: Build and Run

```
dotnet build
dotnet run
```

The application will start and display the URL (typically `https://localhost:5001`).

## Step 6: First Login

### Default Admin Account

On first run, if no admin users exist, the system creates a default administrator:

- **Email:** admin@admin.com
- **Password:** Admin123!

**IMPORTANT:** Change this password immediately after first login!

## Custom Admin Credentials

You can specify custom admin credentials in `appsettings.json` before first run:

```
{
  "AdminEmail": "your-email@example.com",
  "AdminPassword": "YourSecurePassword123!"
}
```

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## Step 7: Configure Email (Required for Full Functionality)

Email is required for: - User registration (email confirmation) - Password reset - Contact form - Two-factor authentication setup

See the **Email Configuration Guide** for detailed setup instructions.

**Quick Setup:** 1. Log in as Admin 2. Navigate to **System Credentials** 3. Add your SMTP credentials (at minimum): - SMTP\_SERVER - e.g., smtp.gmail.com - SMTP\_PORT - e.g., 587 - SMTP\_USERNAME - your email - SMTP\_PASSWORD - your password or app password - SMTP\_SSL - true

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## Step 8: Verify Your Setup

After completing the steps above, verify everything works:

1. **Test Email:** Go to Admin menu → Email Test → Send a test email
  2. **Register a User:** Log out, register a new account, confirm email
  3. **Document Library:** Create a folder, upload a PDF
  4. **Photo Gallery:** Create a category, upload an image
  5. **Contact Form:** Submit a test message from the Contact page
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## Project Structure Overview

Ape/	
├─ Areas/Identity/	# Authentication pages (login, register, 2FA)
├─ Controllers/	# MVC controllers
├─ Data/	# Database context and migrations
├─ Models/	# Entity models and view models
├─ Services/	# Business logic services
├─ Views/	# Razor views
├─ wwwroot/	# Static files (CSS, JS, images)
├─ ProtectedFiles/	# Uploaded PDF documents
├─ Program.cs	# Application startup
└─ appsettings.json	# Configuration

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## Next Steps

- **Email Configuration Guide** - Set up Azure and SMTP email
  - **Administrator Guide** - Learn all admin features
  - **User Management Guide** - Managing users and roles
  - **Document & Gallery Guide** - Managing content
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## Troubleshooting

### “Master key not configured”

Ensure the `MASTER_CREDENTIAL_KEY_ILLUSTRATE` environment variable is set and restart the application.

### **Database connection errors**

1. Verify SQL Server is running
2. Check connection string in appsettings.json
3. For production, verify environment variables are set

### **Email not sending**

1. Check System Credentials for correct email settings
2. Use the Email Test page to diagnose issues
3. Review Email Logs for error messages

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**Version:** 1.0.0 **Framework:** Ape Framework **Site:** <https://Illustrate.net>