

PSScript - Getting Started Guide

This document provides a comprehensive guide to setting up and using the PSScript application.

System Overview

PSScript is a PowerShell script management system that allows users to:

- Upload and manage PowerShell scripts
- Organize scripts by categories and tags
- Search scripts using vector search capabilities
- Analyze scripts for security and best practices
- Chat with an AI assistant about PowerShell topics

Prerequisites

- Node.js (v14+)
- PostgreSQL (v12+)
- Redis (optional, for enhanced caching)

Quick Start

1. Clone the repository
2. Install dependencies: `bash npm install`
3. Set up the environment variables:
```bash # Copy the example environment file cp .env.example .env`  
`# Edit the .env file with your configuration ```
  1. Initialize the database: `bash node setup-database.js`
  2. Start the application: ```bash # Start all services npm run start:all`

```
Or start components individually npm run start:backend npm run start:frontend
npm run start:ai ``
```

1. Access the application:
2. Frontend: <http://localhost:3000>
3. Backend API: <http://localhost:4001>
4. AI Service: <http://localhost:5001>

## Default Admin Account

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The system comes with a default administrator account: - Email:  
`admin@psscript.com` - Password: `ChangeMe1!`

It's recommended to change the default password after first login.

## Database Setup

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### PostgreSQL Configuration

1. Create a new database: `sql CREATE DATABASE psscript;`
2. Enable the pgvector extension (if using vector search): `sql \c psscript  
CREATE EXTENSION IF NOT EXISTS vector;`
3. Run the database initialization script: `bash node setup-database.js`

### Redis Configuration (Optional)

Configure Redis in the .env file:

```
REDIS_URL=redis://localhost:6379
```

The system will automatically fall back to in-memory caching if Redis is unavailable.

## Key Features

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## 1. Script Management

- **Upload Scripts:** Upload PowerShell scripts through the web interface
- **Script Categories:** Organize scripts by categories
- **Tagging:** Apply tags to scripts for better organization
- **Version Control:** Track changes to scripts over time
- **Bulk Operations:** Perform actions on multiple scripts at once

## 2. Script Analysis

- **Security Analysis:** Automatically analyze scripts for security issues
- **Best Practices:** Check scripts against PowerShell best practices
- **Syntax Validation:** Verify script syntax is correct
- **Command Details:** View detailed information about PowerShell commands used

## 3. AI Integration

- **Chat Interface:** Ask questions about PowerShell
- **Script Generation:** Generate scripts based on natural language descriptions
- **Script Explanation:** Get plain-language explanations of script functionality
- **Documentation Search:** Search PowerShell documentation

## 4. Search Capabilities

- **Full-Text Search:** Search script content and metadata
- **Vector Search:** Find similar scripts using semantic search (requires pgvector)
- **Advanced Filters:** Filter by category, tags, author, date, etc.
- **Sorting Options:** Sort results by relevance, date, popularity, etc.

## Troubleshooting

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### Database Connectivity Issues

If you experience database connection problems:

1. Check your database credentials in the .env file
2. Verify PostgreSQL is running: `bash pg_isready -h localhost -p 5432`

3. Run the database test script: `bash node src/backend/test-db.js`

## Login Issues

If you're having trouble logging in:

1. Verify the database is properly set up
2. Reset the admin password: `bash node add-admin-user.js`
3. Check the auth logs: `bash tail -f logs/authentication.log`

## Performance Issues

If the application is running slowly:

1. Ensure Redis is configured correctly for caching
2. Check database indexes are created properly
3. Verify pgvector extension is installed if using vector search

## Additional Resources

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- **Database Documentation:** See [DATABASE-IMPROVEMENTS.md](#)
- **Authentication Documentation:** See [AUTHENTICATION-IMPROVEMENTS.md](#)
- **Vector Search:** See [README-VECTOR-SEARCH.md](#)
- **Voice API Integration:** See [README-VOICE-API.md](#)

## Support

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For support, please open an issue in the GitHub repository or contact the development team.