

# Deployment Guide for MuniAPMs Task Scheduler

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## Streamlit Cloud Deployment (Recommended)

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### Prerequisites

- GitHub account
- Streamlit Cloud account (free at [share.streamlit.io](https://share.streamlit.io))

### Step-by-Step Deployment

#### 1. Upload to GitHub

- Create a new repository on GitHub
- Upload all files from this directory to the repository
- Ensure the repository is public or accessible to Streamlit Cloud

#### 2. Deploy on Streamlit Cloud

- Go to <https://share.streamlit.io>
- Sign in with your GitHub account
- Click “New app”
- Select your repository
- Set the main file path to: `app.py`
- Click “Deploy”

#### 3. Configuration

- The app will automatically use the settings in `.streamlit/config.toml`
- No additional configuration needed for basic deployment

## Local Development

#### 1. Install Dependencies

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

#### 2. Run Locally

```
bash
streamlit run app.py
```

#### 3. Access the App

- Open your browser to <http://localhost:8501>

## Environment Requirements

- Python 3.8 or higher
- All dependencies listed in `requirements.txt`
- No database required (uses Streamlit session state)
- No external API keys needed

## Troubleshooting

### Common Issues:

#### 1. App won't start

- Check that all files are uploaded correctly
- Verify requirements.txt is present
- Ensure Python version compatibility

#### 2. Styling issues

- Verify .streamlit/config.toml is uploaded
- Check that custom CSS is loading properly

#### 3. Schedule generation errors

- Ensure all team members have availability set
- Check for valid day selections
- Verify constraint logic is working

## Performance Optimization

- App is optimized for small teams (<10 people)
- Uses minimal memory with session state
- No persistent storage required
- Fast schedule generation (<1 second)

## Security Considerations

- No sensitive data stored
- All processing happens client-side in browser
- No external API calls
- Safe for internal company use

## Support

For deployment issues:

1. Check Streamlit Cloud logs
2. Verify all files are present in repository
3. Test locally first before deploying
4. Contact MuniAPMs IT team for assistance

## Updates and Maintenance

To update the deployed app:

1. Make changes to your local files
2. Push changes to GitHub repository
3. Streamlit Cloud will automatically redeploy
4. Changes typically take 1-2 minutes to appear

## Backup and Recovery

- All code is stored in GitHub repository
- No data persistence means no backup needed
- Easy to redeploy from scratch if needed
- Export functionality allows users to save schedules locally