

# n8n Troubleshooting & Best Practices

## Fix Problems, Build Better

### Out The Mud Work Shops

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#### Common Problems & Solutions

##### "My workflow stopped working"

###### Check These First:

###### 1. Credentials Expired?

- Click the credential
- Re-authenticate
- Test connection

###### 2. Hit Rate Limits?

- Add "Wait" node (5 seconds)
- Use "Split in Batches" node
- Check API limits

###### 3. Data Format Changed?

- Check recent executions
  - Look for red error nodes
  - Update field mappings
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##### "It's running multiple times"

###### Solutions:

- Add "Remove Duplicates" node after trigger
  - Check trigger settings for duplicates
  - Use "Merge" node carefully
  - Add cooldown period with "Wait" node
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##### "Can't connect two apps"

###### Workarounds:

###### 1. Use Webhooks

- App A → Webhook → n8n
- n8n → Webhook → App B

###### 2. Use Google Sheets as Bridge

- App A → Google Sheets
- Google Sheets → App B

###### 3. HTTP Request Node

- For any app with an API
  - More flexible than pre-built nodes
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## Debug Like a Pro

### 1. Use "Stop and Error" Node

```
[Your Flow] → [Stop and Error] → [See Data Here]
```

Shows exactly what data is flowing through

### 2. Test with ONE Item

- Don't test with 100 emails
- Use "Limit" parameter
- Start small, scale up

### 3. Check Execution History

- Click "Executions" tab
- Red = failed
- Green = success
- Click to see details

### 4. Add Notes to Nodes

- Right-click any node
- Add note
- Explain what it does
- Future you will thank you



## Best Practices

### Naming Conventions

- ✗ Bad: Node, Node1, Node2
- ✓ Good: Get Customer Email, Check VIP Status, Send Premium Offer

### Workflow Organization

- One workflow = one process
- Group related workflows in folders
- Use tags for easy finding
- Export backups monthly

### Error Handling

```
[Main Workflow] → [Error Trigger] → [Email Me] → [Log to Sheet]
```

Never let workflows fail silently!



## Performance Tips

### Make It Faster

#### 1. Batch Operations

- Process 10 items at once
- Not 1 at a time

## 2. Smart Scheduling

- Run heavy workflows at night
- Spread throughout day
- Avoid top of hour (everyone does this)

## 3. Caching Strategy

- Store frequently used data
- Update cache periodically
- Don't fetch same data repeatedly



# Essential Expressions

## Date & Time

```
// Today's date
{{new Date().toISOString().split('T')[0]}}

// Add 7 days
{{new Date(Date.now() + 7 * 24 * 60 * 60 * 1000).toISOString()}}

// Format date nicely
{{new Date($json.date).toLocaleDateString()}}
```

## Text Manipulation

```
// Combine first and last name
{{ $json.firstName }} {{ $json.lastName }}

// Make email lowercase
{{ $json.email.toLowerCase() }}

// Get first word
{{ $json.text.split(' ')[0] }}
```

## Numbers & Money

```
// Format as currency
${{parseFloat($json.amount).toFixed(2)}}

// Calculate tax
{{ $json.price * 1.08 }}

// Round to nearest 10
{{Math.round($json.number / 10) * 10}}
```

## Conditionals

```
// If field exists, use it, otherwise default
{{ $json.name ? $json.name : "Friend" }}
```

```
// Check if number is big
{{$json.amount > 100 ? "Big Sale!" : "Regular Sale"}}
```

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## When Things Go Wrong

### The Debug Checklist

1. ✓ Is workflow active?
2. ✓ Are credentials valid?
3. ✓ Is trigger configured correctly?
4. ✓ Check execution history
5. ✓ Test each node individually
6. ✓ Look for red error badges
7. ✓ Read error messages carefully

### Reading Error Messages

- **401 Unauthorized** = Check credentials
  - **429 Too Many Requests** = Add delays
  - **500 Server Error** = Their problem, not yours
  - **Cannot read property** = Data structure changed
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## Monitoring Your Automations

### Weekly Health Check

- Review execution history
- Check for failed runs
- Look for patterns in errors
- Update credentials proactively

### Monthly Optimization

- Remove unused workflows
  - Combine similar workflows
  - Update deprecated nodes
  - Clean up test data
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## Learning Resources

### Built-in Help

- Hover over any field
- Click (?) icons
- Node documentation panel
- Example workflows

### Community Resources

- n8n Community Forum
  - YouTube tutorials
  - Template library
  - Discord community
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## Level Up Techniques

## Variables Between Nodes

```
// Set variable in one node
$setVariable('customerType', 'VIP')

// Use in another node
$getVariable('customerType')
```

## Loop Through Items






[Get Items] → [Split In Batches] → [Process Each] → [Loop Back]

## Parallel Processing

```
[Trigger] → [Router] → [Path 1]
                        ↓
                    [Path 2]
                        ↓
                [Merge Results]
```

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## Signs You're Getting Good

-  Workflows run for weeks without issues
-  You debug problems in minutes
-  You help others in community
-  You think "I can automate that!"
-  Your business runs itself

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**Remember:** Every error is a learning opportunity. Every automation is a step toward freedom.

*Rise above the technical challenges. Master your automation destiny.*