Example Document with Mermaid Diagrams

This is an example markdown document containing various Mermaid diagrams that can be converted to PNG using the MermaidToPNG converter.

Flowchart Example

```
graph TD
    A[Start] --> B{Decision}
    B -->|Yes| C[Process 1]
    B -->|No| D[Process 2]
    C --> E[End]
    D --> E
```

Sequence Diagram Example

```
sequenceDiagram
    participant User
    participant System
    participant Database

    User->>System: Login Request
    System->>Database: Validate Credentials
    Database-->>System: Validation Result
    System-->>User: Login Response
```

Class Diagram Example

```
classDiagram
    class Animal {
        +String name
        +int age
        +speak()
    }

    class Dog {
        +String breed
        +bark()
    }

    class Cat {
        +int lives
        +meow()
    }
```

```
    Animal <|-- Dog
    Animal <|-- Cat
```

Gantt Chart Example

```
gantt
    title Project Timeline
    dateFormat  YYYY-MM-DD
    section Development
    Design        :active, des1, 2025-01-01, 30d
    Implementation :des2, after des1, 45d
    Testing       :des3, after des2, 30d
    section Deployment
    Production   :crit, dep1, 2025-03-15, 15d
```

Pie Chart Example

```
pie title Programming Language Usage
    "Python" : 45
    "JavaScript" : 30
    "Java" : 15
    "Other" : 10
```

State Diagram Example

```
stateDiagram-v2
    [*] --> Still
    Still --> [*]

    Still --> Moving
    Moving --> Still
    Moving --> Crash
    Crash --> [*]
```

Complex Flow Example

```
graph LR
    A[Start] --> B{Input Validation}
    B -->|Valid| C[Process Data]
    B -->|Invalid| D[Show Error]
    C --> E{Data Analysis}
    E -->|Success| F[Generate Report]
    E -->|Failure| G[Log Error]
    F --> H[End]
```

```
        D --> H
        G --> H
```

Usage Instructions

To convert these diagrams to PNG, run:

```
# Using Python script (requires Node.js)
python mermaid_to_png_converter.py example_document.md

# Using standalone executable
./mermaid_to_png_converter example_document.md
```

The tool will create an example_document_diagrams/ directory containing:

- .mmd files with the extracted Mermaid code
- .png files with the generated images

Each diagram will be numbered sequentially (diagram_1, diagram_2, etc.).