

# Document Sequence

Creating a document sequence in Frappe involves several steps, including setting up the necessary doctype, creating a sequence record, and implementing the autoname function in your custom doctype. Here's a step-by-step guide:

## Step 1: Create the Document Sequence Doctype

1. **Define Fields:** Create a new Doctype named `Document Sequence`. This doctype should have the following fields:
  - `for_doctype`: Link field to `DocType`.
  - `next_id`: Integer field for the next sequence number.
  - `prefix`: Data field for any prefix in the sequence.
  - `suffix`: Data field for any suffix in the sequence.
  - `increment`: Integer field to define the increment value for each new document.
2. **Permissions:** Set appropriate permissions for this doctype.

## Step 2: Create a Sequence Record

1. **Navigate to Document Sequence:** Go to the `Document Sequence` list view in your Frappe site.
2. **Add a New Record:** Click on "New" to create a new sequence.
3. **Fill Details:** Enter the details for the sequence. For example:
  - `for_doctype`: "Log And Email"
  - `next_id`: 1 (or your starting point)
  - `prefix`: "LOG-" (or your desired prefix)
  - `suffix`: "-2023" (or your desired suffix)
  - `increment`: 1 (or your desired increment)

## Step 3: Implement Autoname Function in Custom Doctype

1. **Create/Edit Custom Doctype:** Go to your custom doctype, in this case, "Log And Email".
2. **Add Python Code:** In the Python file for your doctype (e.g., `log_and_email.py`), implement the autoname function using the provided code.

```
import frappe
from frappe.model.document import Document

class LogAndEmail(Document):
    def autoname(self):
        sequence_doc_name = frappe.db.get_value(
            "Document Sequence", {"for_doctype": "Log And Email"}, "name"
        )

        if not sequence_doc_name:
            frappe.throw("Document Sequence not found for Log And Email.")

        sequence_doc = frappe.get_doc("Document Sequence", sequence_doc_name)
        prefix = sequence_doc.prefix if sequence_doc.prefix else ""
        suffix = sequence_doc.suffix if sequence_doc.suffix else ""
        self.name = f"{prefix}{sequence_doc.next_id}{suffix}"
        sequence_doc.next_id += sequence_doc.increment
        sequence_doc.save()
```

3. **Save and Reload:** Save your changes and reload the server if necessary.

## Step 4: Test the Implementation

1. **Create a New Record:** Go to the "Log And Email" doctype and create a new record.
2. **Verify Autoname:** Ensure that the document is named according to the sequence you set up.

## Additional Considerations

- **Error Handling:** Make sure your code gracefully handles any errors, such as missing sequence records.
- **Concurrency:** If your application has high concurrency, consider implementing a locking mechanism to avoid duplicate names.
- **Customization:** You can further customize the sequence logic based on your specific requirements.

By following these steps, you can create a document sequence in Frappe and use it to automatically name new documents in your custom doctype.