

# CREATE CUSTOM CHART



1 helm create mychart



```
.
├── mychart
│   ├── Chart.yaml
│   ├── charts
│   ├── templates
│   │   ├── NOTES.txt
│   │   ├── _helpers.tpl
│   │   ├── deployment.yaml
│   │   ├── hpa.yaml
│   │   ├── ingress.yaml
│   │   ├── service.yaml
│   │   ├── serviceaccount.yaml
│   │   └── tests
│   │       └── test-connection.yaml
│   └── values.yaml
```

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- **Chart.yaml**: Contains metadata about the chart, such as its name, version, description, and keywords.
- **values.yaml**: A configuration file that holds default values for your chart's parameters. These values can be overwritten during installation.
- **charts**: A folder where you can put other Helm charts that your chart depends on. These are called subcharts.
- **templates**: A folder containing Kubernetes manifest templates that Helm uses to generate the final manifests for deployment.
  - **\_helpers.tpl**: This file contains template helpers that are used across other template files.
  - **tests**: This folder contains test files that can be executed to validate the chart's functionality.
- **.helmignore**: This file lists patterns for files and directories that should be ignored when packaging the chart. It works similarly to a .gitignore file.

# INSTALL CUSTOM CHART



```
1 helm install myapp mychart
```

```
NAME: myapp
```

```
LAST DEPLOYED: Tue Apr 25 22:01:07 2023
```

```
NAMESPACE: default
```

```
STATUS: deployed
```

```
REVISION: 1
```

```
NOTES:
```

```
1. Get the application URL by running these commands:
```

```
export POD_NAME=$(kubectl get pods --namespace default -l "app.kubernetes.io/name=mychart,app.kubernetes.io/instance=myapp" -o jsonpath="{.items[0].metadata.name}")
```

```
export CONTAINER_PORT=$(kubectl get pod --namespace default $POD_NAME -o jsonpath="{.spec.containers[0].ports[0].containerPort}")
```

```
echo "Visit http://127.0.0.1:8080 to use your application"
```

```
kubectl --namespace default port-forward $POD_NAME 8080:$CONTAINER_PORT
```

# PACKAGE THE CHART



```
1 helm package mychart
```

```
.
├── mychart
│   ├── Chart.yaml
│   ├── charts
│   ├── templates
│   │   ├── NOTES.txt
│   │   ├── _helpers.tpl
│   │   ├── deployment.yaml
│   │   ├── hpa.yaml
│   │   ├── ingress.yaml
│   │   ├── service.yaml
│   │   ├── serviceaccount.yaml
│   │   └── tests
│   │       └── test-connection.yaml
│   └── values.yaml
└── mychart-0.1.0.tgz
```

# LINTING THE CHART



```
1 helm lint
2 ==> Linting .
3 [INFO] Chart.yaml: icon is recommended
4
5 1 chart(s) linted, 0 chart(s) failed
```