

# Lab 5 – Starter Kit & Automation

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## Objective

Automatically build a clean, organized starter project environment using a shell script.

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## Script: `starter_kit.sh`

### Script Content

```
#!/bin/bash
# starter_kit.sh

# 1. Create project structure
mkdir -p project/scripts
mkdir -p project/docs
mkdir -p project/data

# 2. Add placeholder README.md in each folder
echo "# Scripts" > project/scripts/README.md
echo "# Documentation" > project/docs/README.md
echo "# Data" > project/data/README.md
echo "# Project Root" > project/README.md

# 3. Print completion message
echo "🎉 Starter Kit Ready!"
```

## How the Script Works

### 1. Creates the folder structure:

- `project/`
  - `scripts/`
  - `docs/`
  - `data/`

### 2. Adds a `README.md` file in each folder with a relevant placeholder title.

### 3. Prints a completion message:

- `"🎉 Starter Kit Ready!"` confirms everything is set up.
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## Visual Output

After running the script, your folder structure will look like this:

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```
ujjwaltyagi@ujjwaltyagi:~/projects$ nano starter_pack.sh
ujjwaltyagi@ujjwaltyagi:~/projects$ chmod 777 starter_pack.sh
ujjwaltyagi@ujjwaltyagi:~/projects$ ./starter_pack.sh
Starter Kit Ready!
```

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## ▶ Example Run

```
$ bash starter_kit.sh
❖ Starter Kit Ready!
$ tree project/
project/
├── README.md
├── data
│   └── README.md
├── docs
│   └── README.md
└── scripts
    └── README.md
```

```
ujjwaltyagi@ujjwaltyagi:~/projects$ ls -R
.:
project  starter_pack.sh

./project:
data  docs  README.md  scripts

./project/data:
README.md

./project/docs:
README.md

./project/scripts:
README.md
```

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## ? Extra Questions

[1] What does `mkdir -p` do?

- It creates a directory and any necessary parent directories.
- If the directory already exists, it does **not** throw an error.

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[2] Why is automation useful in DevOps?

- **Saves time:** Repetitive tasks are handled quickly and consistently.
  - **Reduces errors:** Scripts ensure the same steps are followed every time.
  - **Scalability:** Makes it easy to set up environments for many projects or teams.
  - **Reliability:** Automated setups are predictable and reproducible.
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✦ **End of Lab 5 – Starter Kit & Automation** ✦