

Lab 5 – Starter Kit & Automation

Objective

The goal of this lab is to build a **starter project environment automatically** using a shell script.

Tasks

- ◊ 1. Shell Script – `starter_kit.sh`

```
#!/bin/bash
# Lab 5 – Starter Kit Script
# This script sets up a basic project environment with folders and README files.

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

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

# Print success message
echo "Starter Kit Ready!"
```

Make script executable:

```
chmod +x starter_kit.sh
```

Run script:

```
./starter_kit.sh
```

- ◊ 2. Output (Sample Screenshot)

When you run the script, your terminal should show:

```
kali㉿kali:~$ ./starter_kit.sh
Starter Kit Ready!
```

◊ 3. Documentation – LAB_extra.md

```
# 📄 LAB_extra.md - Lab 5

## 📋 Purpose of Script
The `starter_kit.sh` script automates the setup of a standard project structure by creating the following folders:
- `scripts/` → for code or automation scripts
- `docs/` → for documentation
- `data/` → for datasets or input files

It also places a placeholder `README.md` in each folder for better organization.

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## 🐻 Example Run
```bash
kali㉿kali:~$./starter_kit.sh
Starter Kit Ready!

```

kali@kali:~/Documents bash starter\_kit.sh

```
project/
└── scripts/
└── docs/
└── data/
```

Starter Kit Ready!

## ❓ Extra Questions

1. What does `mkdir -p` do?

- The `-p` flag tells `mkdir` to **create parent directories as needed**.
- Example:

```
mkdir -p project/scripts
```

If `project/` doesn't exist, it will be created automatically before making `scripts/`.

## 2. Why is automation useful in DevOps?

- Ensures **consistency** → environments are always set up the same way.
  - Saves **time and effort** → no need for manual repetitive tasks.
  - Reduces **human error** → fewer mistakes during setup.
  - Enables **scalability** → large projects and teams can onboard quickly.
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## 📦 Deliverables

1. `starter_kit.sh` → Shell script for environment setup.
2. `LAB_extra.md` → Documentation with purpose, example run, and Q&A.
3. `LAB_extra.pdf` → Export of the `.md` file into PDF for submission.

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