Task 10: Compress & Archive Automation

1. Create the script:

nano archive_logs.sh

```
#!/bin/bash
LOG_DIR="/home/studentuser/projectX/logs"
BACKUP_DIR="/home/studentuser/projectX/backup"
DATE=$(date +%F)
ARCHIVE_NAME="archive_${DATE}.tar.gz"
mkdir -p "$BACKUP_DIR"
find "$LOG_DIR" -type f -name "*.log" -size +10M > /tmp/large_logs.txt
if [ -s /tmp/large_logs.txt ]; then
tar -czf "/tmp/$ARCHIVE_NAME" -T /tmp/large_logs.txt
mv "/tmp/$ARCHIVE_NAME" "$BACKUP_DIR/"
echo "Archived logs moved to $BACKUP_DIR/$ARCHIVE_NAME"
else
echo "No .log files larger than 10MB found."
fi
rm -f /tmp/large_logs.txt
```

2. Run it:

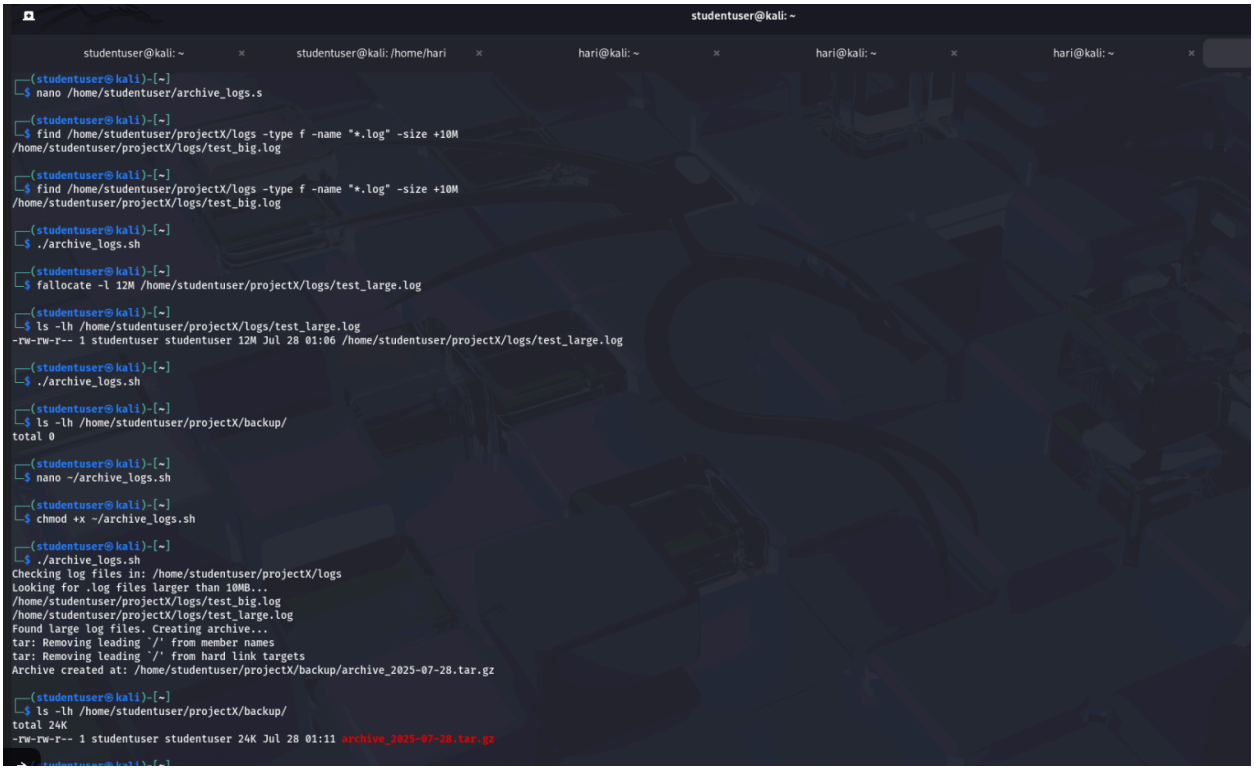
```
chmod +x archive_logs.sh
./archive_logs.sh
```

3. To test the script, you can create a dummy 11MB log file:

```
fallocate -l 11M /home/studentuser/projectX/logs/test_big.log
```

4. Check the backup folder:

ls -lh /home/studentuser/projectX/backup/



Conclusion: Task 10 automated the process of finding `.log` files larger than 10MB, compressing them into a dated archive, and moving it to a backup directory. This task demonstrated file management, archiving with `tar`, and automating backups using a shell script.