# Zulu :
# A Motor Part Shop Software

Inventory Management Made Easy
SOFTWARE ENGINEERING LABORATORY

01

# Project Description and Key Features

What does Zulu do?

# Inventory Management

# + much more

# Streamlining Sales and Supply Ordering

## Keeping Track with Minimum Effort

Zulu keeps track of quantities of all the items in the inventory and along with their other attributes like price, manufacturer details, vehicle type etc. Selling an item is made effortless and the software also provides a list of items to be ordered at the end of each day so the owner can be carefree about having enough stock in the inventory

# Key Features

## 01

Zulu has a very easy to use and intuitive GUI, designed specifically so that any person without any prior experience of using such a software can use it easily.

## 02

Security features and exception handling are especially taken care of at all places to make the system fast and reliable.

# Key Features

## 03

Zulu is super fast. Algorithms in the back-end have been carefully designed and implemented in a way to make everything fast and seamless even with huge amount of data.

## 04

Zulu is easy to setup and use. It is OS independent and has minimum number of dependencies. A single time database initialisation is required and then you're good to go.

02

# Implementation and Design Choices

# Why Java?

Java is an object oriented programming language. Developing OOP based apps is easier as it helps keeps the system flexible and extensible. Java also promotes the use of object-oriented design patterns making it suitable for developers to work on code with this language.

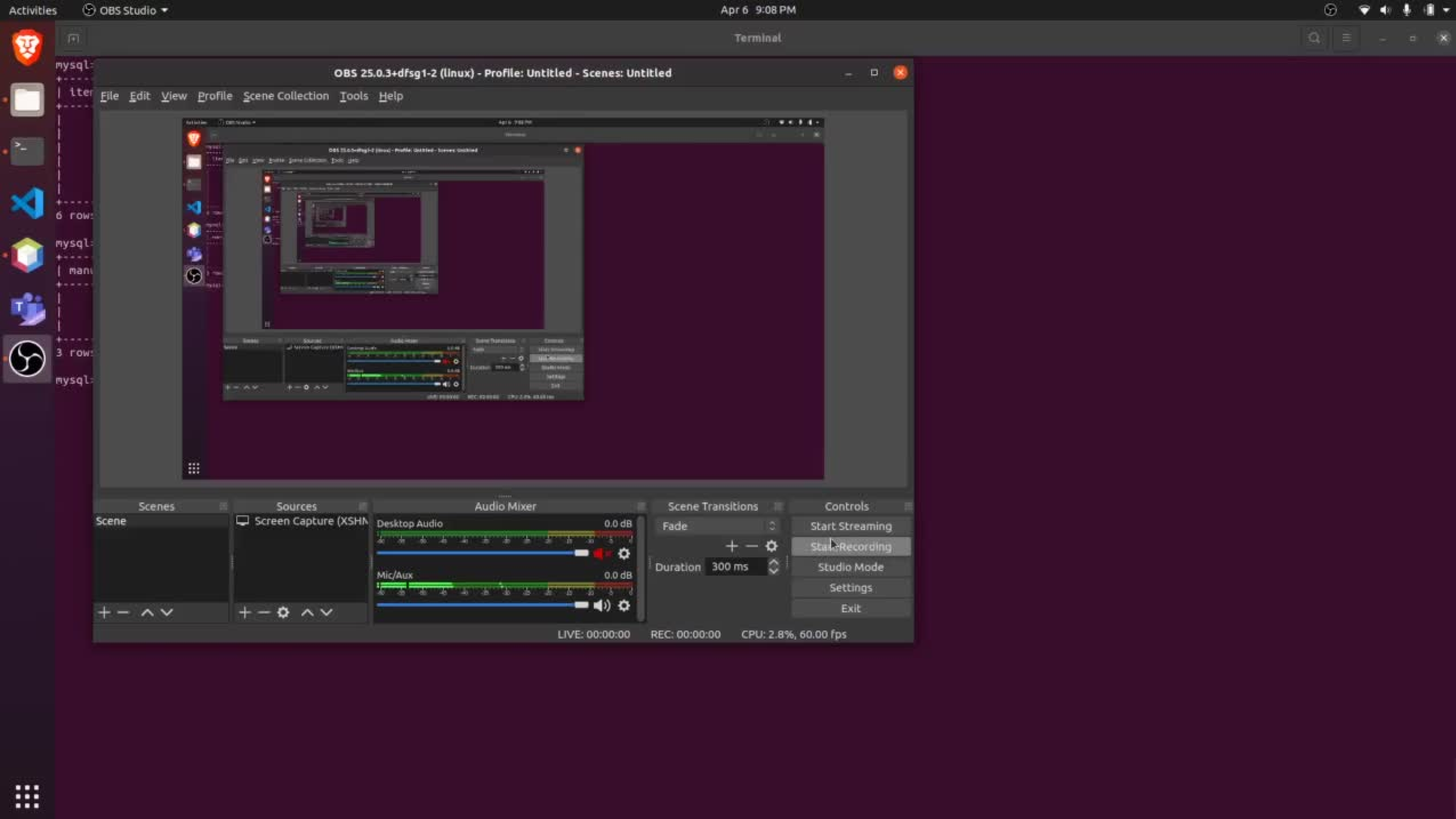
Designing a GUI with Java Swing is easy and provides with many advantages like high amount of inbuilt component types, inbuilt features, OS independence and no additional dependencies need to be installed as Swing is present as standard library in JRE.

Easy integration with MySQL database using JDBC as it is a cross-platform API. It is also easy to install and maintain. Important aspects like query and updation can be performed using JDBC with minimal amount of code.

# MySQL for Database Management

MySQL is an easy to use, fast, secure, flexible, relational and free to use database management system. All these features along with easy integration with Java make it an ideal choice.

# Don't believe us? :(
# See for yourselves...


Activities
OBS Studio
Apr 6 9:08 PM
Terminal
OBS 25.0.3+dfsg1-2 (linux) - Profile: Untitled - Scenes: Untitled
File Edit View Profile Scene Collection Tools Help
Scenes
Scene
Sources
Screen Capture (XSHM
Audio Mixer
Desktop Audio
0.0 dB
Mic/Aux
0.0 dB
Scene Transitions
Fade
Duration
300 ms
Controls
Start Streaming
Start Recording
Studio Mode
Settings
Exit
LIVE: 00:00:00
REC: 00:00:00
CPU: 2.8%, 60.00 fps

03

# Challenges Faced

# Challenges Faced

## 01

Overcoming the front-end design challenge and making the software beautiful and functional in limited amount of time.

## 02

Learning to use multiple softwares and frameworks in limited amount of time like Netbeans, MySQL, JAVA Swing, JUnit etc.

## 03

Handling large amount of data and making sure the software always runs smoothly and reliably.

# 10,000+

## The number of items with which we have tested the software

The system runs smoothly and reliably without any hiccups for large amounts of data with unnoticeable query and updation time

04

# Future Improvements

# Future Improvements and Possibilities

01

The software can be extended to a multiple user interface from the current single user implementation.

02

Search and sort options can be added while viewing the inventory and the order list to make it more convinient.

03

Report sale feature can be improved to add multiple items to the bill and possibly store the bill as a PDF.

# Future Improvements and Possibilities

## 04

More detailed analytical tools can be added such as viewing sales graph for a certain manufacturer or a vehicle type.

## 05

It can be extended to other types of warehouse and shop management systems as well using the current software as a template

# Meet the team

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# THANK YOU !!