

Laboratory Instruction: Virtual Assistant Invoice System

Objective

Build a command-line invoice management system using Java, JDBC, and MySQL to help a Virtual Assistant track client services and generate invoices.

Client Brief

Overview

As a Virtual Assistant, I provide various services to multiple clients. I need a system where I can keep track of my invoices, clients, and services.

Features

1. **Client Management:** Add, view, update, and delete clients.
2. **Service Management:** Add, view, update, and delete services.
3. **Invoice Management:** Create invoices, add services to invoices, and view client invoices.
4. **Additional features:** Feel free to include additional features in your system.

Technical Requirements

1. Command-line application built using Java
2. MySQL for data storage
3. JDBC for database connectivity

GitHub and Database Setup

1. Create a GitHub repository for your project
2. Include a SQL dump file of your database

Assessment Criteria

1. Correct implementation of JDBC and MySQL operations

2. Code structure and organization
3. Business logic implementation

Submission

Submit your GitHub repository link containing:

- Complete source code
- SQL dump file
- Screenshots showing working program features

Good luck!

Examples CLI program:

```
=== Virtual Assistant Invoice System ===
1. Client Management
2. Service Management
3. Invoice Management
4. Exit
Enter your choice: 3
```

```
=== Invoice Management ===
1. Create New Invoice
2. View All Invoices
3. View Invoice by Client
Enter your choice: 1
```

```
Creating new invoice:
Select client:
1. Tech Solutions Inc.
2. Marketing Wizards
3. Green Earth Foundation
Enter client number: 2
```

```
Available services for Marketing Wizards:
1. Social Media Management ($25/hr)
2. Email Management ($20/hr)
```

```
Add services to invoice:
1. Add service
2. Finish invoice
Enter choice: 1
```

```
Select service number: 1
Enter hours: 15
Service added to invoice.
```

```
Add services to invoice:
```

1. Add service
2. Finish invoice
Enter choice: 1

Select service number: 2
Enter hours: 5
Service added to invoice.

Add services to invoice:
1. Add service
2. Finish invoice
Enter choice: 2

...Creating Invoice...

Invoice - MW-003 (February 2025)
Client: Marketing Wizards
- Social Media Management: 15hrs × \$25/hr = \$375
- Email Management: 5hrs × \$20/hr = \$100
Subtotal: \$475
Tax (10%): \$47.50 (Optional)
Total: \$522.50

Invoice created successfully!