

Academy Training



Jukebox

Application Specification

© NETbuilder 2012
Academy and Consulting
Centre
10 Northbrook Business
Park
Northbrook Road
Worthing, West Sussex
BN14 8PQ

Tel +44(0)1903 823 254
Fax +44(0)1903 204 942

Contents

1. Jukebox Application	4
1.1. Introduction	4
1.2. Requirements	4
1.3. Deliverables	4

1. Jukebox Application

1.1. Introduction

A jukebox is a software application which has access to a defined library of songs that it can play. The jukebox operates in two modes; standard mode and shuffle mode.

In standard mode users can insert coins into the hardware counterpart for the jukebox in order to add songs to the play queue. In shuffle mode the owner of the jukebox tells the jukebox to randomly play songs in order to maintain the atmosphere.

1.2. Requirements

The application must be built in a Java EE environment. There must be a database that holds the song list. The application should have a way of tracking balance. The application must have a way of adding songs to the song queue. The song queue must have a way of advancing through the queue. The application should have the ability to search for songs by name, album and artist. The application must have a shuffle function. The user interface could be graphical.

a. Songs

A Song is made up of the following information:

Name, Length, Year, Album, and Artist.

A song can have multiple artists. Each song costs 25p per play.

b. User Stories

- As a user i must be able to purchase a song to play.
- As an admin i must be able to switch the jukebox to and from shuffle mode without allowing users to do so as well.
- as a user i must be able to locate the song i wish to play
- As an admin i should be able to create a shuffle playlist to set the atmosphere i want.

c. Code structure

The code must be structured into the data, service, and presentation layer structure.

d. User Interface

The code must have at minimum a debug text-based interface and there should be some form of graphical interface.

1.3. Deliverables

Data layer for connecting to and retrieving songs from a database.

Service layer that handles the play queues and other logic.

Presentation layer that displays the song information and contains the user interface.

Accompanying diagrams for the code.

Documentation for each class to clearly demonstrate understanding and intent.