

Railway Ticket Reservation System

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Aim of the Project

This project aims to implement an IRCTC-like ticket reservation system.

What has been achieved

A simple server has been set up which offers users to:

- make a user account
- delete a user account
- enquire about trains, seats, fares, routes
- book, cancel, view tickets
- file TDR
- get PNR status

Significant amount of test data has been accumulated by parsing realistic data from web sources. A major part of the project is dedicated to managing:

- reservation data ranging from 2 months old upto 4 months in future
- trains, trips, timetables, station pools
- distances between stations
- fares & costs
- quotas viz. GN, TKL, LD
- status viz. CNF, W/L, RAC (with **proper** pool, quota and wait list clearance)
- coaches viz. S, G, A, B, C, CC
- seat allotment
- cancellations

What has not been achieved

- The chart preparation phase wherein all bookings are listed, printed and handed over to the ticket checking staff has been overlooked.
- The TDR resolution facility has been skipped; TDRs can be filed though.

Contributions & Credits

- Harshit Maheshwari (10290):
 - coded in Python and Bash to help in importing realistic IRCTC train schedule data into the database
 - assisted in automated scripts that generate the database from scratch and fill it in
 - made PHP files that help in editing user profiles
 - contributed to the web designing part; made the ER diagram
- Jeetesh Mangwani (10314)
 - coded PHP files that help in getting availability, booking/cancelling tickets, seeing booking history and PNR status
 - assisted in automated scripts that generate the database from scratch and fill it in

- contributed to web designing part
- Refined & corrected ER diagrams and schemas
- Vinit Kataria (10807)
 - coded in Python and Bash to help in importing realistic IRCTC train schedule data into the database
 - assisted in automated scripts that generate the database from scratch and fill it in
 - coded PHP files that assist in dealing with TDR matters
 - Refined & corrected ER diagrams and schemas

Implementation

Following are the related files

- account.php: the main page of the website after login
- book.php: for booking seats
- goforcancellation.php, cancel.php: for cancelling seats
- captcha.php: for captcha generation
- changepassword.php, changepasswordfinal.php: for changing passwords
- dblink.php: for establishing link with the database
- findTrains.php: finding trains between station
- footer.php: general footer code for all php files
- generate.php: generating test data and some tables
- getAvailability: getting availability of seats
- guard.php: destroys timed out sessions and redirects to index.php
- header.js: Javascript functions to assist the website on client side
- header.php: general header code for most php files
- history.php: getting the booking history of current user account
- index.php: main page of the website when not logged in
- logout.php: Logs the user out
- Makefile: setting up the database and server anew
- pnrStatus.php: echoes back with PNR status related data
- Railways.sql: contains SQL code for generating tables and sequences
- register.php: registers new users into the website
- tdr.php, tdrfiling.php, tdrfinal.php: TDR related files
- triggers.sql: triggers for checking whether validity constraints are satisfied
- updateprofile.php, updateprofilefinal.php: User profile updation
- datagencodes: Python and Bash codes for generating and importing realistic data

Servers & Platforms

- Ubuntu
Release 11.04 (natty)
Kernel Linux 2.6.38-8-generic
GNOME 2.32.1
- Server version: Apache/2.2.17 (Ubuntu)
Server built: Feb 14 2012 19:59:02
- mysql Ver 14.14 Distrib 5.1.63, for debian-linux-gnu (x86_64) using readline 6.2

