

Common Portal Platform

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Abstract: With increasing number of government forms and holders it has become difficult for each user to visit each site separately for form filling. a user to fill a single form needs to visit a separate site allotted by the government. Common portal platform assigns several numbers of forms in one place by allowing user to fill various forms at one go without separately visiting different sites. pan-card, passport, driving license are some of the common forms indulged in the platform along with the complete procedure to fill a form step by step for a newly visiting user. FAQ's, help panel, office details, link to website, proper security constraints have been taken care of by providing each user with a separate transaction id as soon as he finishes up filling the form so that he can track and stays aware about status of his form filled. For a few forms such as pan card payment can also be filled by the user and for forms such as passport users digital signature and photographs can be uploaded which is kept within the database. This platform has been designed keeping in mind problems faced by every new user signing up or a user who is less aware of how to operate well online. A pure GUI has been provided for a user with limited number of options so that no new user gets messed up. Radio buttons, buttons, scroll down menus, popup boxes have been embedded in each form layout to increase its interactivity. Database table has been designed for each form to store user necessary credits with each table holding a primary key to keep track of individual users. Once the users fills the forms he selected he is redirected to the payment frames and simultaneously his forms record is built within the database. Each user differently is assigned a special id for his form in future and also for the admin to access the user's database record easily for any queries. Database is totally secure with proper maintenance of record.

Keywords: services, government, portal, database design

1. Introduction

Java 8 is one of the most significant upgrades to Java programming language and framework in over a decade. It provides supports for functional programming, a new JavaScript engine, new APIs for date time manipulation, a new stream API, and more. Such features can help make programs easier to read, write, and maintain.

Among the new Java 8 features, lambda expressions are touted to be most significant. Lambda expression simplifies the development process by facilitating functional programming. They also provide a concise way to write anonymous inner classes and make it easier to iterate through, filter, and exact data from a Collection.

The project common portal provides users and common people a single platform for form filling. Manner times it becomes difficult got one to visit the nearby centre and grab forms or find forms online. Common portal has been designed keeping this in mind and provides you several forms at a single platform. Forms provided are:

- 1) Passport
- 2) Pancard
- 3) Learner's license
- 4) Voter Id
- 5) Aadhar card

Once user completes his form filling and submits it he would be provided with a unique identification no which would mark his form no and details. FAQ frames have been provided with all those questions that crashes 90% users mind with appropriate solution. Helpline frames are filled with contact details, offices addresses and significant URL's which would help you to access online details further. Common portal has been designed in Net Beans 8.2 and has been filled with almost all features of Swings by which it

has been made more interactive through addition of colours, images, buttons, combo box etc.

Database organizing and storage has been made in Oracle 10.1 ex. Tables for almost all frames have been designed with each having a primary key so that one can be easily identified at the time of record checking.

For some forms like online environment we also provide you payment options through debit/credit/net banking etc. Since Java provides easy portability we can easily port it to different devices with no problem.

Common portal consists of a platform where you can fill several forms at a single platform only instead of entering multiple websites. It also consist of FAQ frames where all questions that poke users mind can be found with solutions. We have also provided help frames where contact information, office details of that specific form you select. If you have more doubts regarding any other info main website link has been provided within the help frame itself.

2. Literature Review

The Net Beans integrated development environment (IDE) delivers. The Net Beans IDE can boost your productivity when you're working with Java SE, Java EE, or Java ME technology as well as PHP, Groovy, JavaScript, and C/C++. Visual tools that generate skeleton code are also available, letting you create a basic application without writing a single line of code.

Here are top reasons to use the Net Beans IDE:

- 1) Works Out of the Box Simply download and install the Net Beans IDE and you are good to go. Installation is a breeze with its small download size. All IDE tools and features are fully integrated—no need to hunt for plug-ins—and they work together when you launch the IDE.

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- 2) Free and Open Source When you use the Net Beans IDE, you join a vibrant, open-source community of thousands of users ready to help and contribute. There are discussions on the Net Beans mailing lists, blogs on Planet Net Beans, and helpful FAQs.
- 3) Connected Developer the Net Beans IDE is the tool of choice for teams working in a collaborative environment. You can create and manage java.net-hosted projects, for example; file issue tracking reports using both Jira and Bugzilla, and collaborate with like-minded developers—all directly from within the familiar interface of the IDE.
- 4) Powerful GUI Builder the GUI Builder (formerly known as Project Matisse) supports a sophisticated yet simplified Swing Application Framework and Beans Binding. Now you can build GUIs in a natural way.
- 5) Support for Java Standards and Platforms the IDE provides end-to-end solutions for all Java development platforms including the latest Java standards.
 - Java Mobility Support Complete environment to create, test, and run applications for mobile devices. With preprocessor blocks, you can readily handle fragmentation issues. Support for Java Mobility development is the best among all Java development tools.
 - Java Enterprise Edition (EE) 6 support: The first free, open-source IDE to support Java EE 6 specifications.
 - Java Standard Edition (SE) Support: You can develop applications using the latest Java SE standards.
- 6) Profiling and Debugging Tools with Net Beans IDE profiler, you get real time insight into memory usage and potential performance bottlenecks. Furthermore, you can instrument specific parts of code to avoid performance degradation during profiling. The Heap Walker tool helps evaluate Java heap contents and find memory leaks.
- 7) Dynamic Language Support the Net Beans IDE provides integrated support for scripting languages such as PHP, Groovy, and JavaScript.
 - PHP: With the Net Beans IDE for PHP, you get the best of both worlds: the productivity of an IDE (code completion, real-time error checking, debugging and more) with the speed and simplicity of your favorite text editor in a less than 30mb download.
 - JavaScript: The Net Beans IDE has the JavaScript tools you need: an intelligent JavaScript editor, CSS/HTML code completion, the ability to debug JavaScript in Firefox and IE, and bundled popular JavaScript libraries. Your favorite JavaScript framework will get you 80% of the way, Net Beans IDE will help you with that last 20%.
 - Groovy: In the Net Beans IDE, you can now create Grails applications, integrate Groovy scripts with your Java SE project.
- 8) Extensible Platform Start with its extensible platform and add your own Net Beans IDE features and extensions or build an IDE-like application, keeping only features you want. Extending the platform and its Swing-based foundation saves development time and can optimize performance.
- 9) Customizable Projects Through the Net Beans IDE build process, which relies on industry standards such as Apache Ant, make, Maven, and rake, rather than a proprietary build process, you can easily customize projects and add functionality. You can build, run, and deploy projects to servers outside of the IDE.
- 10) Non-Java Code Support you're not limited to the Java programming language. You can include many other programming languages, such as C/C++, scripting languages like JavaScript, etc. Even more exciting, define your own language and include it in your projects.
- 11) Dedicated Support Available When you can't get the help you need from the community, consider Developer Support Packages, which offer programming advice, software support, and training credits.

The following are essential definitions – in the current problem's context – needed to understand the approaches mentioned later:

Net Beans Platform: The skeleton application that provides everything most applications need and little of what they don't. The Net Beans Platform provides an application's common requirements -- such as menus, document management, and settings -- right out-of-the-box. Building an application "on top of Net Beans" means that, instead of writing applications from scratch, you only provide the parts of your application that the Net Beans Platform doesn't already have. At the end of the development cycle, you bundle your application with the Net Beans Platform, saving you time and energy and resulting in a solid, reliable application.

Lambda expression: Among the new Java 8 features, lambda expressions are touted to be most significant. Lambda expressions simplify the development process by facilitating functional programming. They also provide a concise way to write anonymous inner classes and make it easier to iterate through, filter, and exact data from a Collection.

Implication and Preconditions:

Although many enhanced for loops can be converted to lambda expressions, there are some precondition to check. For example, lambda expression bodies cannot reference variables that are not final or effectively final (i.e., the variable could have been marked as final). Below are some preconditions for the lambda conversion.

- 1) The conversion must be semantics-preserving. That is, the behaviour of the program prior to the refactoring must match that of after the refactoring.
- 2) The for loop must iterate over an instance of a Collection as this is where stream() is declared.
- 3) The body of the initial for loop must not throw a checked exception.
- 4) The body of the initial for loop must not have more than one reference to a local, non-effectively final variable defined outside the loop.
- 5) The loop body must not contain a break; continue statement as these semantics cannot be expressed via a lambda expression.

System File system: The general registry that contains Net Beans configuration information, built from the layer.xml configuration files of the registered modules. Net Beans stores a wide variety of configuration information in the

System File system. For example, the System File system contains a folder called Menu, which contains subfolders with names such as File and Edit. These subfolders contain files that represent Java classes which implement the actions that appear in the "File" and "Edit" menus in the IDE.

Module: A group of Java classes that provides an application with a specific feature. For example, the feature provided by the Java classes in the Feed Reader Tutorial is an RSS/Atom feed reader. The Java classes use the manifest, mf file to declare the module and the layer.xml configuration file to register their functionality in the System File system. In Net Beans terminology, "plugin" is an adjective, while "module" is a noun. There is no discernible difference in meaning between them.

Net Beans APIs: The public interfaces and classes which are available to module writers. They are divided into specific APIs for dealing with different types of functionality. The contents and behaviour of the Java source packages and its sub packages, as specified in the API reference documentation, are the APIs. For the full Net Beans API List, click here.

Module Suite: A group of interdependent modules that are deployed together. The IDE helps you to brand the suite -- for example, you can add a splash screen and you can specify the parts of the Net Beans Platform that you don't want your application to provide.

3. Figure

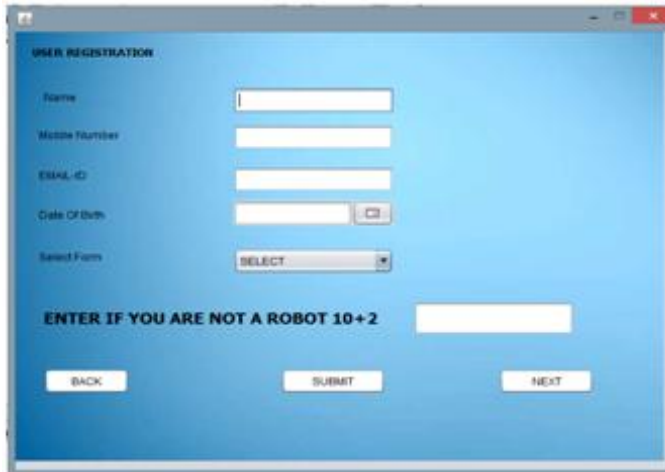


Figure 1.1: User Registration form: Place For A New User To Signup(Top-Left)



Figure 1.2: The Common Portal Platform Help Service (Top-Right)



Figure 1.3: Common Portal Startup Interface: Initial Phase to Mark (Bottom-Left)

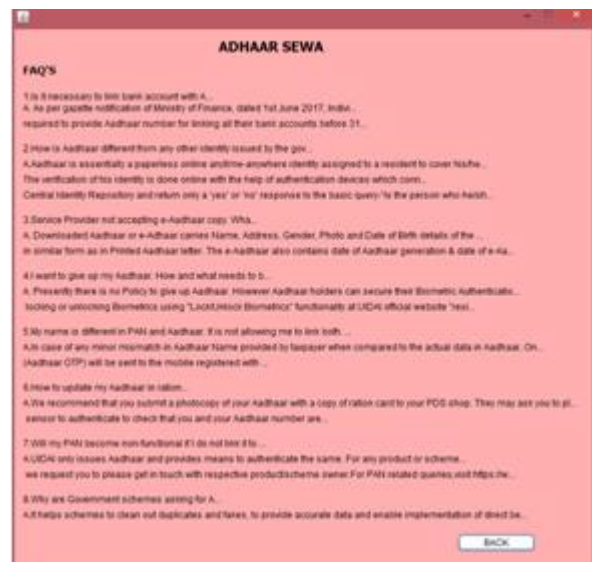


Figure 1.4: Form FAQ'S: Holds Latest Questions, Recently Build Contact No and Active Office Addresses with Proper URL Details. (bottom-right)

AADHAAR ENROLMENT/CORRECTION FORM

Aadhaar Enrolment is free and voluntary. Correction within 96 hours of enrolment is also free. No charges are applicable for Form and Aadhaar Enrolment. In case of Correction provide your EID, Name and only that field which needs Correction.
In case of Correction provide your EID No here:
Please follow the instructions overleaf while filling up the form. Use capital letters only

Pre-Enrolment ID: NPR Receipt/TIN Numbe...

Full Name: Gender: female transgender male

Age: D.O.B

Address: C/O S/O D/O W/O H/O

House No/ Bldg./... Street/Road/Lane

Landmark Area/locality/sector

Village/Town/... Post Office

District Sub-District State

EMAIL MOBILE NO PIN CODE

Details ... FATHER MOTHER GUARDIAN HUSBAND WIFE

For children below 5 years Father/Mother/Guardian's details are mandatory. Adults can opt to not specify this information if they cannot/do not want to disclose.

Name

EID/ Aadhaar No.

Figure 1.5: Aadhar Card Enrolment Form Layout (Self-Designed)

ORACLE Database Express Edition

User HARDIK

Home > Object Browser

Tables

ADHAAR1
DEMO
LEARNER1
PIF1
PANCARD1
PASSPORT
TAXINFO
VOTER_ID

VOTER_ID Create

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL

Query Count Rows Insert Row

EDIT	MOBILE_NUMBER	PHOTOGRAPH	AGE_PROOF	ADDRESS_PROOF	EMAIL_ID
	123	C:\Users\Dell\Documents\disaster mngmnt.docx	C:\Users\Dell\Documents\form5.docx	C:\Users\Dell\Documents\LESSON PLAN letter f.docx	JKO

Download

row(s) 1 - 1 of 1

Application Express 2.1.0.00.39

Figure 1.6: Database Connectivity: Showing All Built Tables for Each Form and User Signup Form. Above Shows Upload of Photographs, Age Proof, Address Proof Documents Uploaded By A User.

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