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Developer Profile Management System

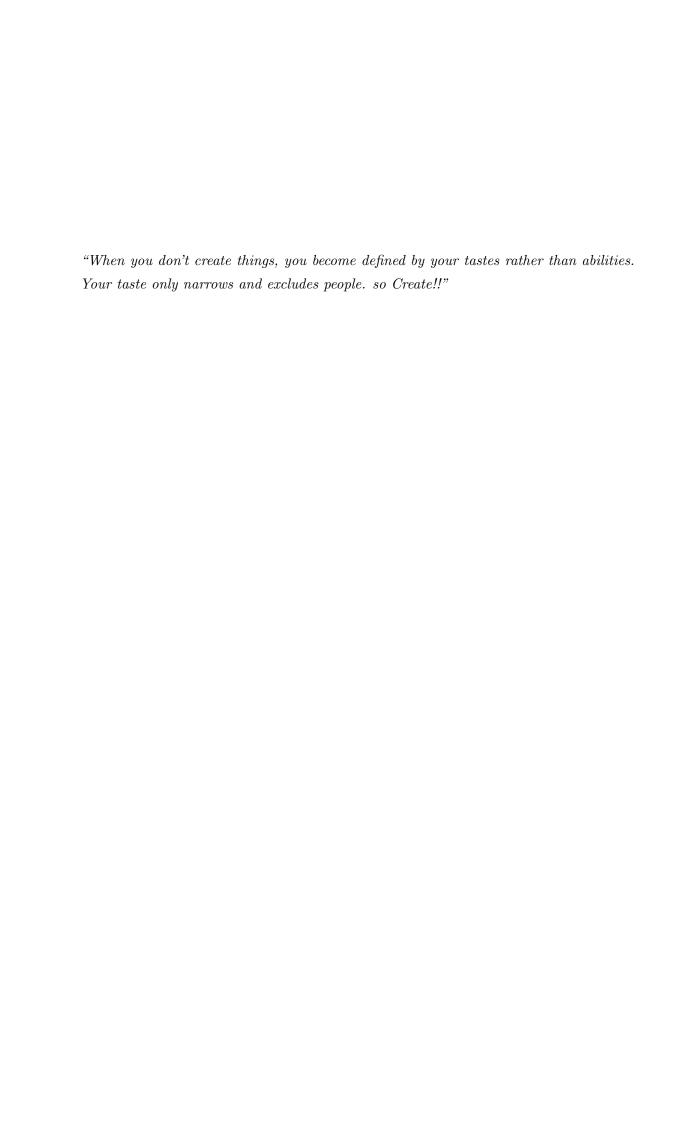
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Submitted in partial fulfillment
Of the requirements of
Object Oriented Programming with Java

in the
Mr. Nirmal Kumar Sivaraman
Computer Science Engineering
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Abstract

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This project, Developer Profile Management System is developed as a part of the course Object Oriented Programming with Java.

Preface

As a part of the curriculum for Computer Science Engineering and in order to gain practical knowledge in the field of Object Oriented Programming, we are required to make a project report on our Mini Project for the OOP Course "Developer Profile Management System".

The basic idea behind doing this project remains the same i.e to enrich our knowledge of the OOP concepts and to become efficient with them; but apart from the aforementioned reasons, we also believe that the system we've tried to develop, could be an efficient Internet tool for Developers and Freelancers all around the world.

In this project report, have included details about our idea, the different implementation modules, their underlying classes/interfaces and the structure used to design them. The design of this project report has helped us visualize our system and taught us how to tackle real-life programming problems in an object-oriented fashion. The modular approach that we were asked to undertake while designing it, has also helped us in learning how to work in a team and collaborate accordingly. Through this report, thus, we have provided a brief insight into the working structure of our management system.

Acknowledgements

We would like to express our sincere gratitude to our supervisor of this project, Mr. Nirmal Kumar Sivaraman who gave us the golden opportunity to do this wonderful project on the topic DEVELOPER PROFILE MANAGEMENT SYSTEM, which also helped us in doing a lot of research and we came to know about so many new things. His willingness to motivate us contributed tremendously to our project. We also would like to thank him for sharing his truthful and illuminating views on a number of issues related to the same. He inspired us greatly to work on it, and without him this project would not have come forth. Finally, an honorable mention goes to our families and friends for their understanding and support. That helped us a lot in finalizing the project within the limited time frame.

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Introduction

In this project, we aim to design a Developer Profile Management System where it acts as a constant link between potential developers across the users and the recruiters looking for certain skills. It is a wide platform to interact with recruiters, scroll for the optimum opportunities and keep oneself updated about the current technological trends and advancements in the skill requirements by the recruiters.

1.1 Scope

The need was felt for such a hierarchy as there is less availability of exposure to developers as they are people behind the screen. We aim to provide an open interactive platform for the same. The project has wide scope as with increasing technology dependency, recruiters and developers both tend to look for best possible alternates virtually rather

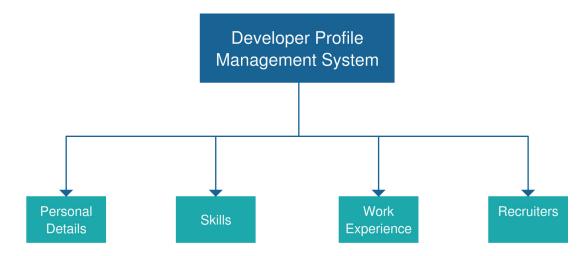


FIGURE 1.1: Flowchart of the modules

than on-field searching. Also it helps cut time consumption for projects which need immediate developers to work upon it. Also it will help multi-national organizations to reach the best professionals easily.

Personal Details

The module fetches the details of the developer in a database. The user could update or view the details as per his/her requirement. And this is a helpful tool for the recruiters as well to contact the developers at the required time. The highlighted concept of this module is the use of INTERFACES for the different types of developers.

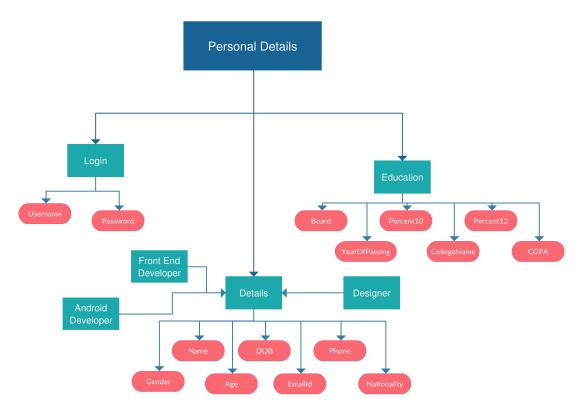


FIGURE 2.1: Flowchart of Personal Details

2.1 Login

This class would ask the user to login and validate his/her credentials.

Type - Parent Class

Attributes -

- Username
- Password

2.2 Details

This class would contain the Personal Details of the developer. It would also contain an attribute asking the developer if he is looking for an intern or a job which would help the recruiters in the recruiting process.

Type - Parent Class

Attributes -

- Name
- EmailId
- Gender
- Nationality
- Phone
- DOB
- Age

2.2.1 Front End Developer

Type - Interface

2.2.2 Android Developer

Type - Interface

2.2.3 Designer

 \mathbf{Type} - Interface

2.3 Education

This class would contain the former education details of the developer.

 \mathbf{Type} - Parent Class

Attributes -

- \bullet Board
- Percent10
- \bullet Percent20
- $\bullet \ \ YearOfPassing$
- $\bullet \ \ CollegeName$
- CGPA

Skills

This module highlights the skill set of a developer logged into the website. This refers to entry saving of skill information of developer including work experience, certifications etc.

The concept of inheritance is pre-dominantly used into this module. The parent class is inherited into the consequent child classes in order to reduce data redundancy.

3.1 SkillSet

This class stores the skill name of the developer after authentication of the user id.

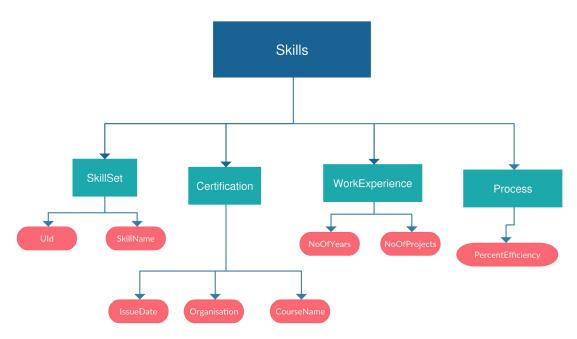


FIGURE 3.1: Flowchart of Skills

Type - Parent Class

Attributes -

- UId
- SkillName

3.2 Certification

This child class inherits the UId and SkillName and stores information about the certification in a particular skill.

Type - Child Class

Attributes -

- IssueDate
- Organisation
- CourseName

3.3 WorkExperience

This child class inherits the UId and SkillName from the parent class and stores information about the experience

Type - Child Class

Attributes -

- NoOfYears
- NoOfProjects

3.4 Efficiency

This child class inherits the UId and SkillName from parent class and stores information on percent efficiency of the performance in the skill.

Type - Child Class

 ${f Attributes}$ - PercentEfficiency

Work Experience

The module primarily focuses on information regarding a developer's past working experiences. Such information is extremely helpful especially when it comes to hiring. Thus, it allows for the updating or display of details regarding previously completed Projects or Internships and published Research Papers by the developer.

4.1 Internships

This class contains information regarding the internships that have been done by the Developer.

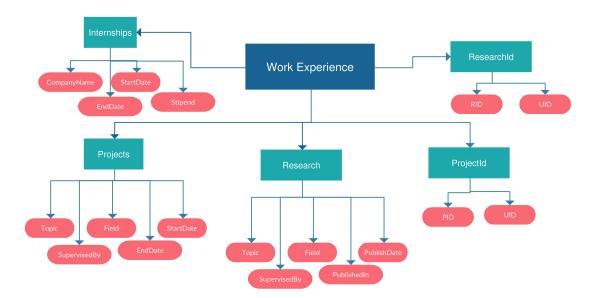


FIGURE 4.1: Flowchart of Work Experience

 \mathbf{Type} - \mathbf{Class}

Attributes -

- CompanyName
- StartDate
- EndDate
- Stipend

4.2 Projects

In this class, there is relevant information about the projects that the developer has completed in past.

 \mathbf{Type} - Class

Attributes -

- Topic
- Field
- StartDate
- EndDate
- SupervisedBy

4.3 Research

Research class contains details about the Research Papers that have been published under the Developer's Name.

Type - Class

Attributes -

- PublishDate
- SupervisedBy
- Topic
- Field
- PublishedIn

4.4 ProjectID

This class serves to relate a project to a particular user through its **Attributes** to accommodate group projects.

 \mathbf{Type} - \mathbf{Class}

Attributes -

- \bullet PID(ProjectID)
- UID(UserID)

4.5 ResearchID

This class serves to relate a research paper to a particular user through its **Attributes** to accommodate team research.

 \mathbf{Type} - \mathbf{Class}

Attributes -

- RID(ResearchID)
- UID(UserID)

Recruiters

Our project, the Developer Profile Management System keeps track of the profile of the developers be it skills, work experience, etc. Now all that information would be valuable to the recruiters, so there must be an efficient way for them to get the information they want easily and in the format that is most suited for them. So, this module of the project would cater to the needs of the recruiters by providing them a way to implement smart queries on the user database.

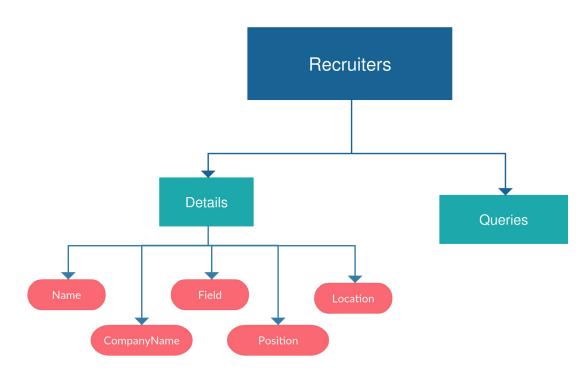


FIGURE 5.1: Flowchart of Recruiters

5.1 Details

This class would hold the information about the recruiters.

Type - Class

Attributes -

- Name
- CompanyName
- Position
- Field
- Location

5.2 Queries

This class of the module would house the methods responsible to perform the search operation on the database. They would be responsible for returning the results based on one or more constraints.

This way they would help the recruiter to find the best suited candidate for the job and thus making the recruiting process altogether efficient.

Type - Class

5.2.1 Use Cases

This section depicts the use cases for the class Queries.

- Based on Certification
 This would enable the recruiters to search based on the developers certifications.
- Based on Intern
 This would enable the recruiters to search based on the internships a person has done.
- Based on Project

 This would enable the recruiters to search based on the projects one has made.

• Based on Research Paper

This would enable the recruiters to search based on the Research Paper one has published.

• Based on Skill

This would enable the recruiters to search based on the skills one has.

• Based on more than one of any of the above cases

This would enable the recruiters to search based on more than one of the above mentioned cases.

Conclusion

The project aimed at highlighting the need of having such openly accessible platform for developers and recruiters to meet at one point ad subsequent implementation of the model designed. The benefits of implementing such design include deep knowledge of the concept of Object Oriented Programing and practical implications of the concepts like interfaces, inheritance, polymorphism, etc. The project hence proves the scope of such designs in upcoming times with technology hype.