ProfileMakers

Project By:

1) Shivam Vishwas Kakade

2) Prathamesh Anil Patil

3) Sumit Nandu More

4) Mehul Ratansing Chaudhari

Under the Guidance of:

Dr. Ashwini Lokhande

Department Of Computer Engineering

Government Polytechnic, Jalgaon

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Department Of Computer Engineering

Government Polytechnic, Jalgaon

CERTIFICATE

This is to certify that,

1. **Shivam Vishwas Kakade**
2. **Prathamesh Anil Patil**
3. **Sumit Nandu More**
4. **Mehul Ratansing Chaudhari**

of CO6I (2021-22) have successfully completed Project on **"ProfileMakers",** under the guidance of **"Dr. Ashwini Lokhande Ma'am"** in partial fulfilment of the requirement for the award of diploma in computer engineering from Maharashtra State Board of Technical Education, Mumbai at Government Polytechnic, Jalgaon.

Dr. Ashwini Lokhande **Dr. P. P. Chaudhari**

PROJECT GUIDE **HOD**

Dr. P. M. Patil

PRINCIPAL

ACKNOWLEDGEMENT

We convey our warm gratitude and sincere thanks Dr. Ashwini Lokhande for his valuable guidance, constant encouragement and valuable suggestions, without which the present capstone project would not have come to its shape.

We are equally grateful to all present faculty members of computer department including teaching and non-teaching staff for providing require academic facilities in accomplishing our project work.

We express our gratitude to the teachers, HOD sir and our guide Dr. Ashwini Lokhande who helped us in completing our project successfully.

Many people, especially our team members itself, have made valuable comment, suggestion on this project which gave us inspiration to improve our project.

We would also thank to all of them who helped us to complete this project.

1. **Shivam Vishwas Kakade**
2. **Prathamesh Anil Patil**
3. **Sumit Nandu More**
4. **Mehul Ratansing Chaudhari**

(CO6I)

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Abstract

ProfileMakers is a website made using HTML, CSS, JavaScript, Bootstrap and Java Servlets technologies. ProfileMakers is a great platform to make your own web profiles completely free without any charges.

In this era of Internet, it is mandatory to represent yourself on the Internet with your profile, to improve your social contacts, to improve your business, to improve your overall presence.

A resume with a web profile will always stand out from those ordinary resumes where only the social site links are provided.

You can represent yourself more comprehensively with a web profile.

It is always a plus point to have your own web profile while representing yourself in interviews or business meetings. It shows how updated you are with this world of internet and websites.

So, if you want to make your own web profile, just visit ProfileMakers website and create your own web profile today.

Chapter 1: Introduction

While talking about websites, many people will think that to create their own web profile they should have a comprehensive knowledge of website building and should have a proper sense of colours.

Also, we cannot forget the hectic faced by a technical person to deploy or host a website on the internet.

You have to buy your own domain, if you want to make your domain easier for people, you have to buy a hosting space where you will store your profile. This process will seem easy for us developers, but this is not the same thing for a person who is running his car selling business or a person who is an employee of a bank or a person who is an owner of a shop.

So, some of the person will opt for the services available on internet.

There are many services for developing your web pages without knowing a bit about website building. But, there is a problem, these services provide you with a drag and drop interface.

In the drag and drop interface you have to develop every single object in your website by yourself. Even if it's a drag and drop process, it takes a lot of time and effort for you to make a single static webpage without any external styling.

Also, you will get boggled choosing the attractive colours.

This is where ProfileMakers comes in the scenario.

ProfileMakers provide you with a simple form-like interface, where you will enter your information and in just one click you will get your own personalized web profile.

The interface of ProfileMakers, which is obviously a web based interface, is developed with a touch of beauty and gentleness. The interface is not so flashy and full of useless pop-ups and all those so called attractions for the customers.

The interface of ProfileMakers is easy to use for a beginner also. The interface will be shown in the Screenshots mentioned in this report.

Chapter 2: Project Plans

❖ Sr.No	❖ Task	❖ Start Date	❖ Finish Date
1	Group discussion and selection of topic Select Title for the project. Research and read more about topic.	15/09/2021	26/09/2021
	Gathering information, discussion and distributions of works to be done.	26/09/2021	05/10/2021
2	Gathering information, group discussion and distributions of works to be done.	06/10/2021	15/10/2021
3	Gathering information about existing system.	16/10/21	31/10/2021
4	Find drawbacks of existing system.	06/11/2021	20/11/2021
5	Searching journals and papers related to proposed system and study them.	21/11/2021	05/12/2021
6	Make Problem Statement and prepare the overview of the project, designing the prototype.	06/12/2021	25/12/2021
7	Preparing DFD level Diagram.	05/01/2022	10/01/2022
8	Preparing the project report.	15/01/2022	31/01/2022

Chapter 3: Project Requirements

❖ Hardware Requirements:

1. Processor: i3 5th Generation or Higher
2. Hard Drive: 512 GB or Higher
3. RAM: 2GB or Higher
4. Internet Connection: 1Mbps or Higher

❖ Software Requirements:

▪ Front-End:

Chrome,
Visual Studio Code Version 4.1 or Higher,
Windows Paint or any other image editing software,
Live Server Extension for VS Code.

▪ Back-End:

TextPad Version 1.8 or Higher,
Java Development Kit Version 1.8 or Higher,
Servlet Extension for JDK,
Apache Web Server or other Web Servers,
Tomcat Servlet Container or other Servlet Container.

Chapter 4: Project Design

❖ Risk Projection:

There are various risks while taking data from the user for his own profile.
We cannot determine which user will enter which kind of data. Some users are skilled in handling computer and other computing devices. But, there is a huge number of users who do not have much knowledge, to handle a computer or other computing devices.

- Data Input:

In some cases, intentionally or unintentionally false data or improper data can be given as input to the website form. If we do not care about the data provided by the users, it can impact the output generated by our website. This is not a good way of handling risks.
So, what actually we can do to handle this risks are, Form Validations, Error Popups and intimations for the user.
Whenever a false or faulty information is entered by the users, we should intimate them that the data entered by the users is having some issues. And, they have to change the input in order to proceed with the further process.
We should not let the user proceed with process of creation of the web profile while inputting problematic information.
This is one of the main risks of the project that are need to be handled.

- Following the Standards:

Sometimes the problem can happen at developers end. While writing the code we have to adhere to a standard for naming conventions and coding patterns.
If we do not give proper attention to this problem many risks can arise.
If we do not follow proper standards, in future, if we try to modify, scale up or scale down some functionalities of the project, we could face tremendous problems.

First of all, we could not detect which functionality is located at which place in the code.

After locating it, we should actually know which particular part of the code is to be changed by the coder and which code is to be deleted.

Hence, while writing the code we should adhere to some standards, so that the scaling or modification of the project will be much simpler for the developing team.

- Testing the Project:

Testing is one of the most important phases while developing an application or a website.

It plays a huge role in ensuring that the project is working as expected.

If the testers don't play their roles as expected, it can be possible that the user expectations will be damaged.

It can make the user experience worsen and also the team would not know anything about the defect unless a wise user provides his feedback.

Hence, doing rigorous testing is an essential need of software and if it is not done properly, it can raise severe risks in the project.

❖ Feasibility Study:

All projects are feasible given unlimited resources and infinite time. Unfortunately the development of computer-based system in many cases is more likely to be plagued by scarcity of resources and delivery date. Hence, we have made use the concept of reusability that is what Object Oriented Programming (OOPS) is all about.

The feasibility report of the project holds the advantages and flexibility of the project. This is divided into three sections:

1. Financial Feasibility
2. Technical Feasibility
3. Operational Feasibility

- **Technical Feasibility:**

Technical feasibility centres on the existing computer system (Hardware and Software, etc.) and to what extend it support the proposed addition. For example, if the current computer is operating at 80 percent capacity – an arbitrary ceiling – then running another application could overload the system or require additional Hardware. This involves financial considerations to accommodate technical enhancements. If the budget is a serious constraint, then the project is judged not feasible. In this project, all the necessary cautions have been taken care to make it technically feasible. Using a key the display of text/object is very fast. Also, the tools, operating system and programming language used in this localization process is compatible with the existing one.

- **Operational Feasibility:**

People are inherently resistant to change, and computers have been known to facilitate change. An estimate should be made of how strong a reaction the user staff is likely to have toward the development of a computerized system. Therefore it is understandable that the introduction of a candidate system requires special efforts to educate and train the staff. The software that is being developed is user friendly and easy to learn. In this way, the developed software is truly efficient and can work on any circumstances, tradition, locales. Behavioural study strives on ensuring that the equilibrium of the organization and status quo in the organizations are not disturbed and changes are readily accepted by the users. The operational feasibility concerns about the major operations of the software. All the major functions of the website is managed properly.

- **Financial Feasibility:**

Economic analysis is the most frequently used method for evaluating the effectiveness of the candidate system. More commonly known as cost/benefit analysis, the procedure is to be determining the benefits and savings that are expected from a candidate and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system.

A systems financial benefit must exceed the cost of developing that system. i.e. A new system being developed should be a good investment for the organization.

Economic feasibility considers the following:

1. The cost to conduct a full system investigation.

2. The cost of hardware and software for the class of application.

3. The benefits in the form of reduced cost or fewer costly errors.

4. The cost if nothing changes (i.e. the proposed system is not developed).

The financial feasibility is also managed really properly and neatly in the ProfileMakers website. This website is developed in minimal cost.

- **Resource Feasibility:**

This aspect looks at the resources that are required to complete the project and whether the amount of available resources are sufficient to complete the project effectively.

We have used feasible resources while making this project.

We have used open source software to develop the project and those can be counted on our fingers.

Hence, we can surely say that the resource feasibility is also managed properly in this project.

❖ **Behavioural and Functional Description**

The behavioural and functional description states the functions provided by the software or website and the behaviour states how the software actually behaves.

The major function of the ProfileMakers is to provide dynamically changed web profiles to the users.

It will present four tabs in the menu bar of the home screen, which are as follows:

1. Home
2. Create Profile
3. Templates
4. Feedback
5. About

Pages on the Website:

- Home

The home page presents the first appearance of the website. It introduces the user with ProfileMakers. It showcases some templates developed by the developers.

It also tells the user for what purpose they can use ProfileMakers.

It shows the steps to make their web profile.

Also, there is a footer at the bottom of all pages.

- Create Profile

Create Profile page holds the major functionality of the project.

Here, the user will get the form where he/she can interact. They have to provide their information in this form to get their web profile. It holds the input form, validations and further proceedings logic.

- Templates

This is not a single page, instead it is a drop-down menu located on the menu bar. The user will see all the templates which they can use to generate the web profile. There are six templates initially in the list. More templates to be added later.

- Feedback

This is a really useful page for the user as well as for the developers' team. Here the users can provide their responses related to the website.

The response can contain a complaint about the functionality or a defect report or a suggestion or their positives response about how the ProfileMakers helped them to solve their problems.

- About

This is the last page on the menu bar. Here, the users will get more information about the ProfileMakers.

They will get their answers for the following questions:

1. What is ProfileMakers?
2. How they can use it?
3. What they will get?
4. How their data will be handled?
5. Who are the people who developed ProfileMakers platform?

Etc.

- **Data Flow Diagrams**

DFD Level 0:

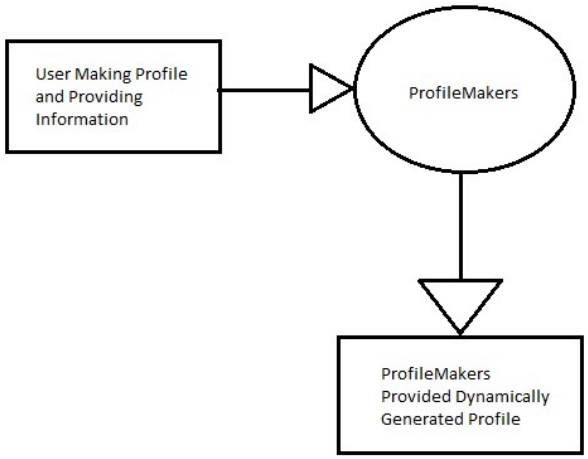


Fig 4.1

DFD Level 1:

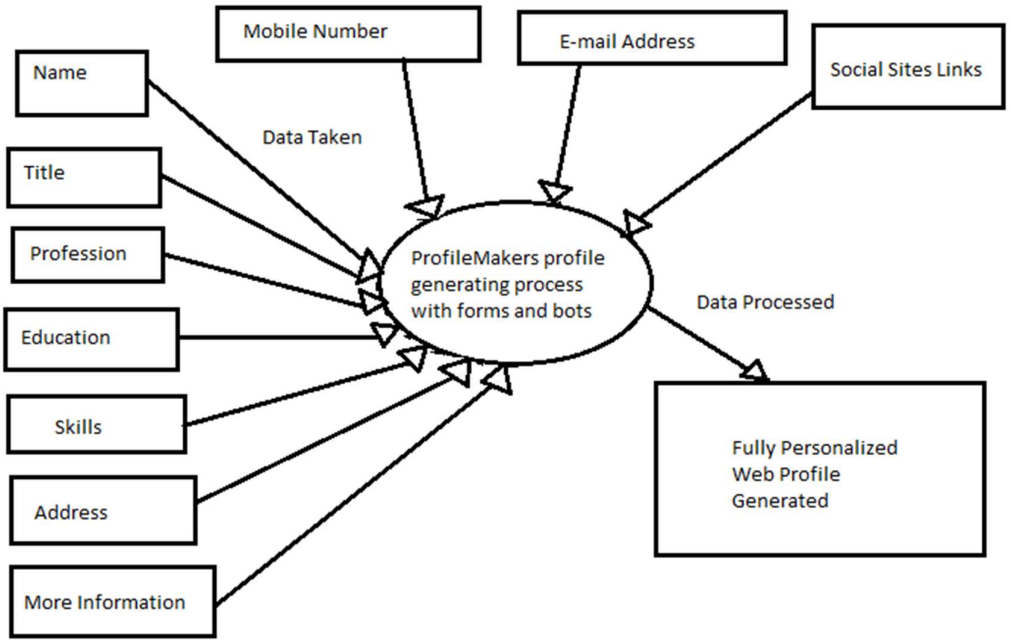


Fig. 4.2

DFD Level 2:

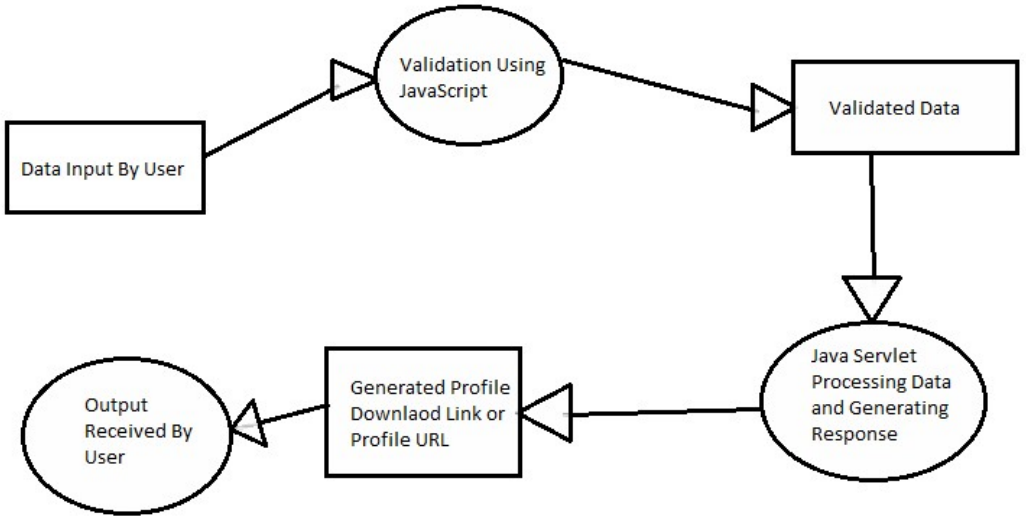


Fig. 4.3

❖ **Screenshots:**

Home Page:

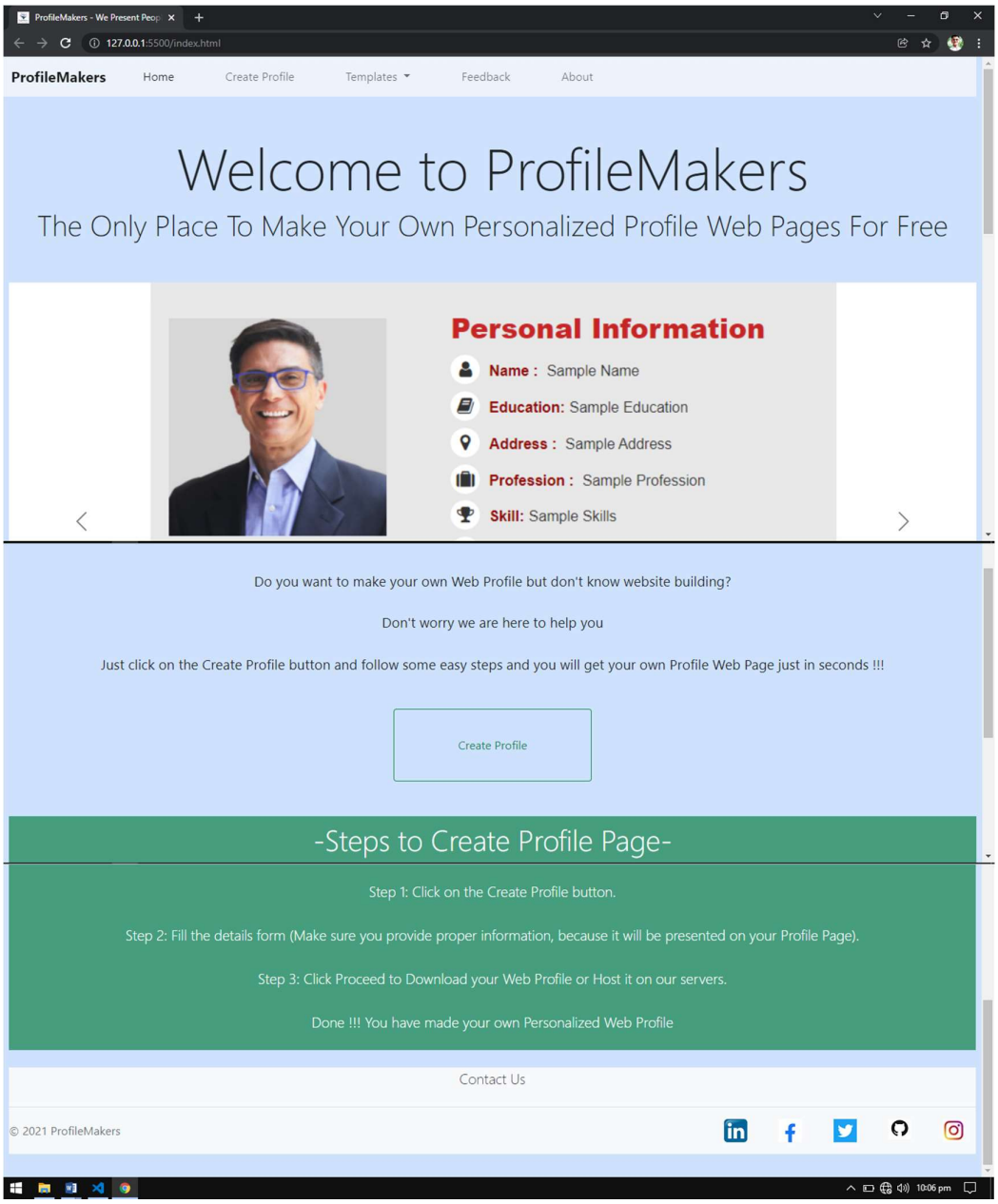


Fig. 4.4

Create Profile Page:

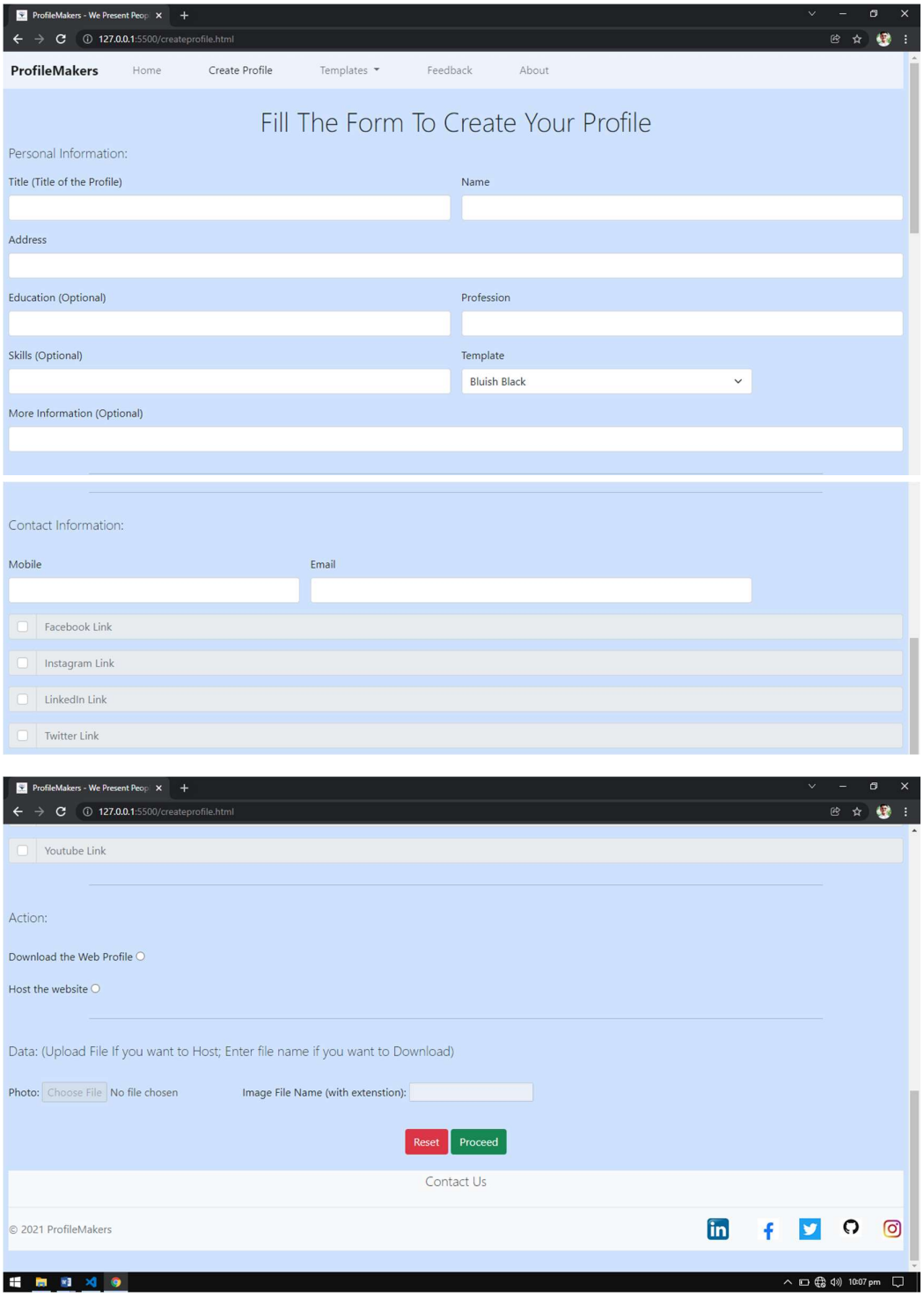
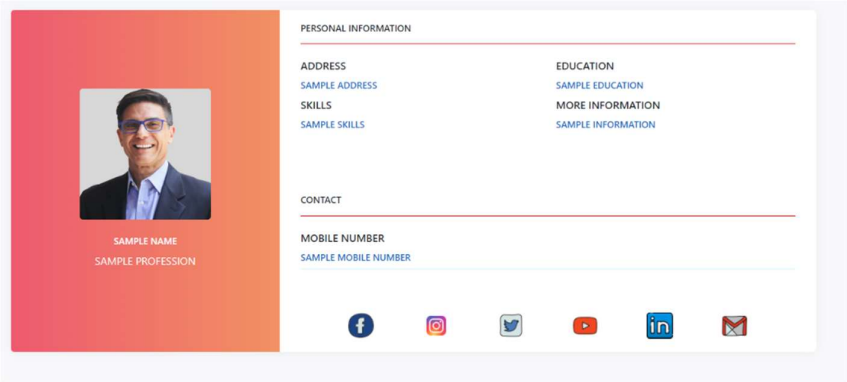


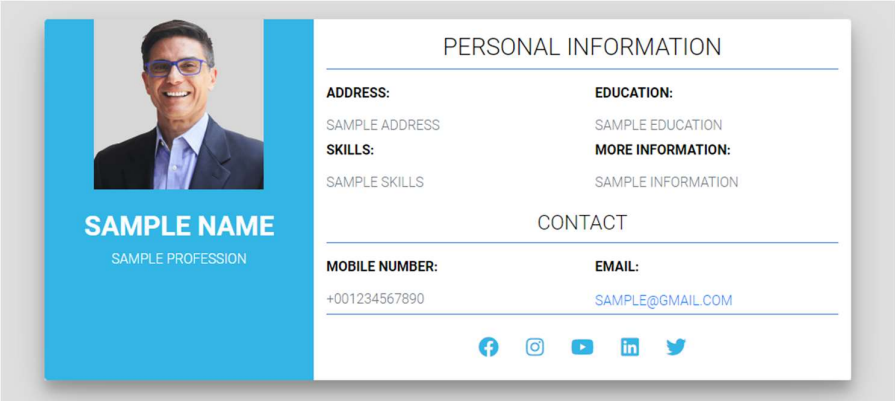
Fig. 4.5

Templates:

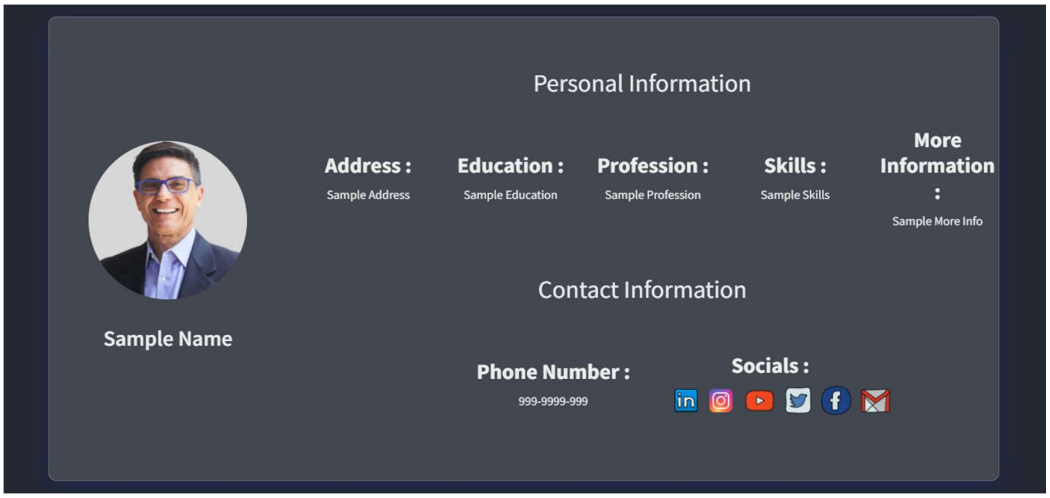
Free-Red



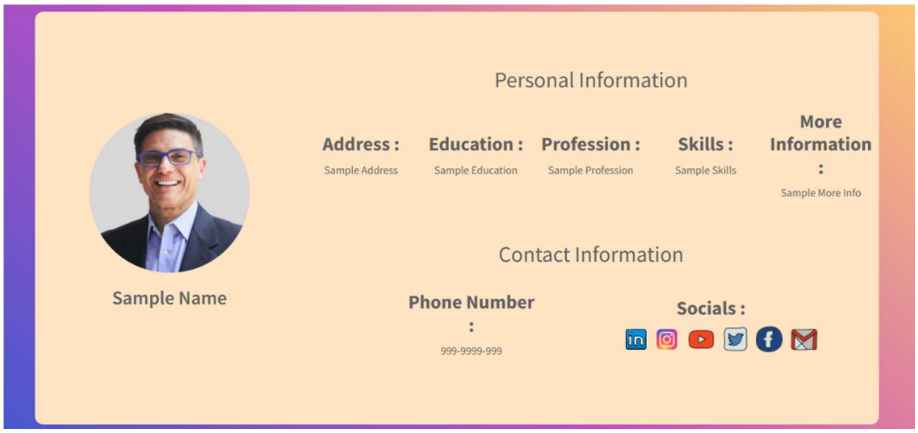
Compact Blue:



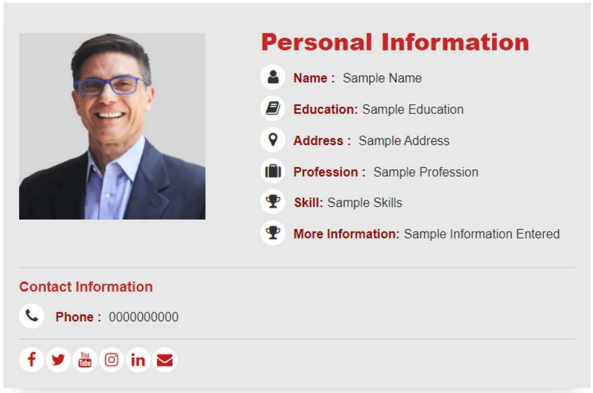
Bluish Black:



Shiny Purple:



Simply Off-white:



Simply Blue:

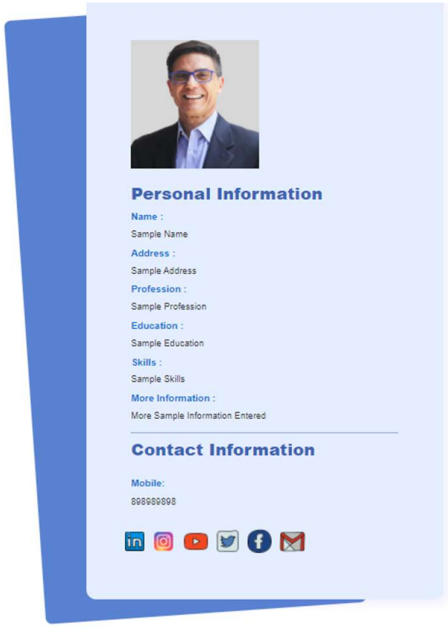


Fig. 4.6 (Includes all Templates)

Feedback:

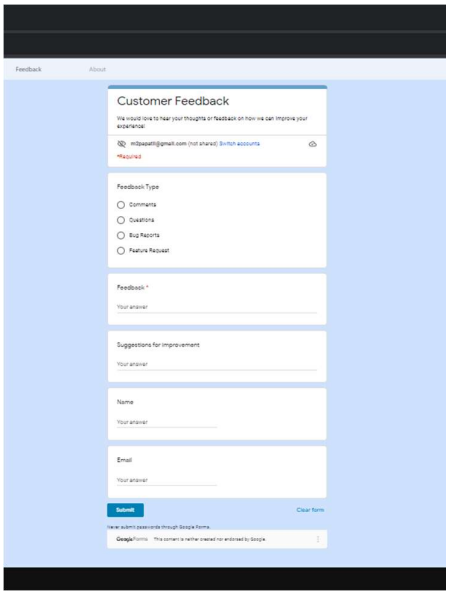
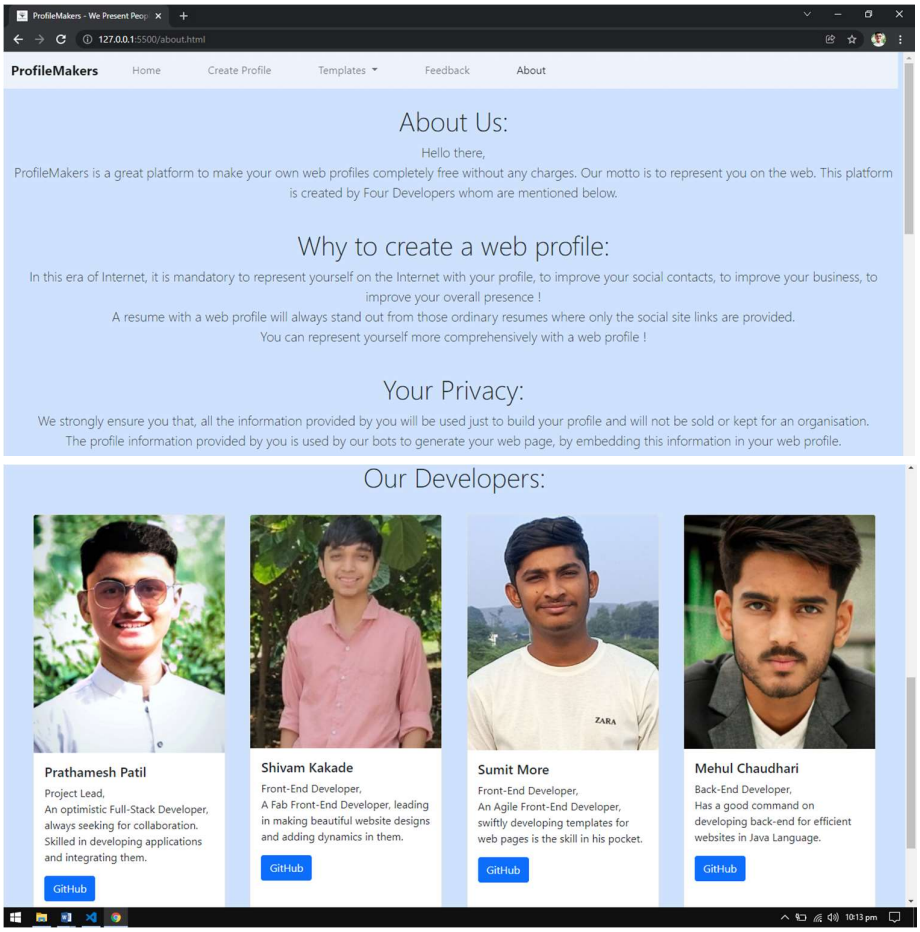


Fig. 4.7

About: Fig. 4.8



Chapter 5: System Development

We have implemented Waterfall model for development of this project.
So we went with a linear sequence of phase while developing the ProfileMakers. These phases of development are explained below:

1) Requirements Gathering Phase:
For every system developed under the Waterfall model, development starts with a phase called as Requirement Gathering.
Our Requirement Gathering phase was not client oriented. As we didn't had any client for this project and we were developing a product based deliverable, we became our own clients.
We started doing research about how people are facing problems while making their own profiles on internet. We thought about how we can help them as Computer Engineering students. So we came to a decision that, we will develop such a website that will provide people with their own web profiles, even if they are having no knowledge about the website development process.
So we created our own requirements, what our project should do and how it should do and noted all those requirements on a note.

2) Designing Phase:
In this phase, we created an abstract view of our project. We made a diagrammatic implementation of the whole project using some tools provided in Microsoft Accessories (namely Microsoft Paint). This phase was initially so underrated by our teammates but as we developed the abstraction of the project the idea of implementation became more clear and clear as we went further in this process. Also, other tools were selected in this phase.
So the deliverables of this project were perfectly arranged DFD diagrams and some artistic doodles from our team. The doodles were not so perfectly sketched but were well enough to get the abstract idea of the project.
The actual image of the doodles:

Concept Doodle:

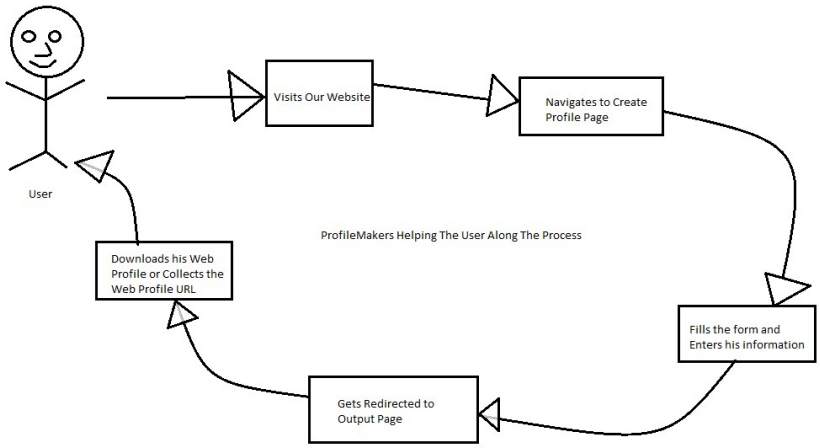


Fig. 5.1

3) Implementation Phase:

After the designing phase, the actual implementation phase was commenced. The implementation phased was divided in two sub-phases.

A. Front-End Development

B. Back-End Development

A) Front-End Development:

Front-End development started with development of the Home page.

The Home page had our strong attention, as it was the first appearance of the website. Hence, we added some attractive navigation bars, carousels, buttons and footers on this Home Page to give the users a great experience of visiting ProfileMakers.

After the Home Page, we started developing the templates for the users. Without templates, it was impossible to give the users, the personalization of their choice. As we were saying previously, personalization was a cherry on the cake for our users.

After the Templates, we developed the Create Profile page which holds the major part of the front-end implementation.

This is the page where the user can enter their information, choose their actions and get redirected to the output page. It contained the form controls and validation processes.

After Create Profile Page, we went forward to develop the Feedback page which will let the users give their views and complaints about any bug if occurred and their positive views on our website.

Lastly, we developed the About page for the users to get to know about ProfileMakers. They will get all their answers for, How do we do it? How we will help them? How they can use ProfileMakers? Who developed ProfileMakers? What about their data they are providing? How it will be used? And many more questions.

B) Back-End Development:

Just a couple of days later after completing the Front-End Implementation, we dived into the Back-End Development.

This development phase was the most logical and most challenging.

The actual logic of this project lies in the Back-End where the users' data will be acquired, it will be processed, and appropriate output will be generated that is sent back to the user.

The Back-End Development comprised of Java Servlet technology, which is a quite famous technology for Back-End of many web applications.

Java Servlet technology implements light weight server side applications, which will not create dedicated processes for every instances of the users. This technology instead creates only one process on the server-side and creates each thread for each request from the client-side. The use of threads instead of processes decrease the server side load and performs efficient operations with same outputs as other technologies like CGI and all.

Chapter 6: System Testing

After the complete implementation of the project was completed. We started doing the testing of ProfileMakers.

We didn't really considered testing as a single different phase only, but the testing was also progressing as we were developing the project.

Whenever we used to complete a module or a unit or a single piece of code, we made the testing happen at the same time. This kind of testing is also called as unit testing.

Using this kind of approach, we ensured ourselves that whenever we complete a unit or a module of the project we are developing it with a good sense of error recognition.

It gave us confidence about the system, that after the integration of the parts the system will provide us with proper output and no errors and bugs.

The dedicated testing phase was also planned by our teammates which was really efficient and fast.

Even if we didn't use any automated tool as our project was not that big, we completed the testing face with a proper pace.

The first sprint of the testing was about the front-end and it covered all the topics about:

1. Check whether the buttons are working.
2. Check whether the links are working.
3. Check whether the rollover effects are working.
4. Check whether the complete website and templates are responsive.
5. Check whether the form validations are working properly.
6. Check whether the pop-ups for error are shown correctly.
7. Check whether the data is being sent to the server.
8. Check whether the links are redirecting to the proper links.
9. Check whether active links are changed in the navigation bar.
10. Check whether the pictorial presentations are aligned properly.

And many more aspects.

The flow of Front-End testing went like this:

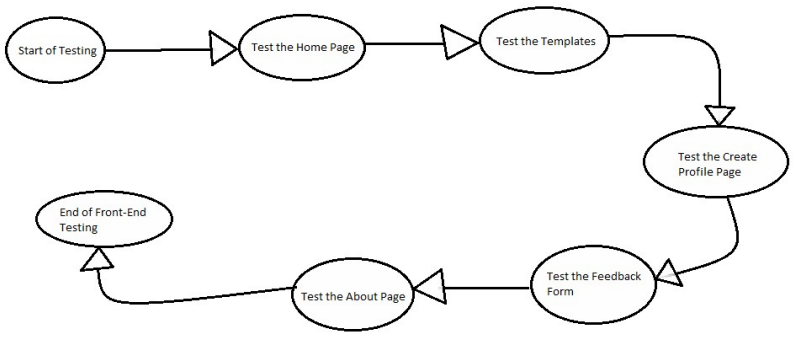


Fig. 6.1

The last sprint of the testing phase was about the back-end.

The back-end was quite easy to test, as it was developed in a compiled and interpreted language and the editor provided concise error messages and warning messages to us to test the servlet program.

The testing of back-end was mainly about running the program with various inputs and checking the output generated by the program. This was the simplest part of testing as it didn't consume our more time and efforts.

Thanks to Java language syntaxes and error detecting compilers.

The flow of back-end testing went like this:

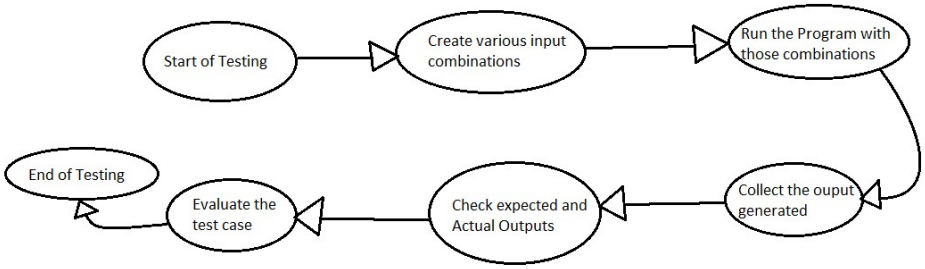


Fig. 6.2

Chapter 7: Conclusion

While coming along the conclusion of this project, ProfileMakers. We are glad to say that this project holds the complete comprehensive knowledge we have gain in this course of Diploma in Computer Engineering.
We have used our 100 percent to develop this project as good as we can and as useful as we can.
While developing the project, we are not only focusing on it as a part of curriculum and an assigned work to be completed, but we look at this project as the implementation of the knowledge gained by us in this very course.

This course of Diploma in Computer Engineering has helped us getting the comprehensive knowledge of developing industry level applications. It helped us to gain the required knowledge to develop this project and make this project stand out of ordinary assignment based projects.

Also, we are confident much to present this project as our output of efforts taken in all the three years of diploma and work done while acquiring the actual learning outcomes stated in the curriculum.

The actual conclusion of this project is that, we have successfully developed a Capstone Project named as ProfileMakers to help non-technical or the people who don’t know website building to build their own Personalized Web Profile.

Chapter 8: Future Scope

The future scope of this project is very simple and clear. While looking forward in the future we see our project to be more productive for our clients. It will be providing extensive services to the clients and fulfil other requirements of them. We will try to get into other domains also out of our comfort zone.

The changes that we see particularly in the ProfileMakers in future are:

1) First of all, we will add some more information in the profile. We will consider the suggestions given by the clients in the Feedback form and will improve likewise.
Like, if someone wants to be more personal about the profile and wants to enter the date of birth also, then we will add one more section for the date of birth. Just like this, other new information contents will be added in the project.

2) After the contents, we will focus on the personalization. We will try to make more and more readymade templates for the users.
Initially the ProfileMakers contains six templates which is also a good number to provide personalization and we cannot neglect that.
But, we have to change with time. That's why we would look forward to add some more readymade templates in the ProfileMakers bucket.

3) Lastly, we will try to divide the profile creation in two categories, one is automatic and second is manual.
In the automatic way, customers will just enter the data in a form and get their webpage generated automatically, just like what we are doing in this project.
And in the manual way, we will try to give the customer a drag and drop interface. It will be useful for those people who want to completely customize their profile with their own fonts, colours and alignments.

It will provide people to create their own profiles with their own imagination and creative minds, improving the overall experience with ProfileMakers.

Also, there are some functionalities on which our team is thinking and will be changing the implementation of ProfileMakers to make it a great choice for people who do not know a bit about website building.

Finally, we would not stop here and would be looking forward for a great future of ProfileMakers while connecting numerous people with it.

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www.youtube.com

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