

Project report

Website of MU CSE 50

Submitted by

Mamunur Rashid Mamun

ID: 201-115-028
Batch: 50
Section: A

&

Nowshin Sharmin

ID: 201-115-027
Batch: 50
Section: A

Submitted to

Ranith Debnath Akash

Senior lecturer
Department of Computer Science & Engineering
Metropolitan University

Submission Date: August 16, 2021



Department of Computer Science & Engineering
Metropolitan University
Bateshwar, Sylhet-3103

Abstract

The "MU CSE 50" website is a helpful and informative website for computer science students. The purpose of creating this website in the 'CSE-200' project is to benefit at least some people through this project and to make this project useful in real life.

This website was originally created for the 50th batch of the CSE Department of Metropolitan University. Which will serve as an assistant for all students in the 50th batch. All the important things like, all the materials of the class, online tutorials, class routines, result records, easy way to know the result by sending mail at 1 stop (applicable to all batches) and many more services. There is also faculty contact information and bus schedule, which will help all the students of the university. This website has a huge collection of tutorials on various topics. Junior students of 50 batches will especially benefit from this website. They will be able to know all the steps of studying computer science in advance through this website. Reference books, previous exam questions, class materials and tutorials will further their progress. This website has an online IT support center. Through which a user can solve IT related problems by calling directly. Basically this website will be helpful for everyone in one way or another.

Table of Contents

1. Introduction	
1.1 Project Overview	<u>3</u>
1.2 Objectives	<u>3</u>
1.3 Methodology	<u>3</u>
2. Background	<u>3</u>
3. Description of the website	
3.1 Homepage	<u>4</u>
3.2 How a feedback or contact form works	<u>11</u>
3.3 Course pages (<i>all semesters</i>)	<u>12</u>
3.4 Routine pages (<i>all sections</i>)	<u>13</u>
3.5 Tutorial pages	<u>15</u>
3.5.1 Programming, Web development, Core courses, Graphic design, Video editing	<u>15</u>
3.5.2 Android app development, UI / UX design	<u>17</u>
3.6 Results	
3.6.1 Previous result records	<u>19</u>
3.6.2 One Stop service	<u>20</u>
3.7 Academic	
3.7.1 Faculty contact information	<u>22</u>
3.7.2 Bus schedule	<u>23</u>
3.8 About	<u>25</u>
3.9 Contact	<u>26</u>
4. Conclusion	<u>27</u>
5. References	<u>28</u>

1. Introduction

1.1 Project overview:

The 'MU CSE 50' website has been created for the convenience of CSE 50 batch students. Where they will get all the facilities including class material, result, class routine. Moreover, for all batches, there is the facility to know the results, bus schedule, faculty contact information, tutorials and much more.

1.2 Objectives:

The main objective of our project is to make it easier for students to study computer science and to ensure that students have easy access to the right resources. To ensure that those who are new to computer science get the right guidelines.

1.3 Methodology:

The structure of this website is made with HTML. CSS has been used for the design and JavaScript and JQuery have also been used for some more special work. We have taken the help of 'Google Forms' and 'Google Sheets' to take input of different forms. This website uses 'Poppins' and 'Oswald' as fonts, which are taken from Google fonts. 'Owl Carousel' has been used as slider. Also a chart from 'Google Charts' has been inserted.

2. Background

If all the information in a batch is available together, then it is beneficial for everyone in that batch. Moreover, it is better if all the information of the university and the department is available in the same place. Then if there are tutorials on all the topics together, then it is possible to further alleviate the suffering of the students. In addition, new batches that come to the university often do not get the right guidelines. We felt a lot of lack of resources when we were newly admitted.

After all, we wanted to do a project that would work for some people. We plan to do this project considering these issues. We have had to struggle a lot to complete this project, especially in the navigation bar, sending mail at 1 stop, then taking the data input of the form, etc. And finally we were able to do these things.

3. Description of the website

3.1 Homepage

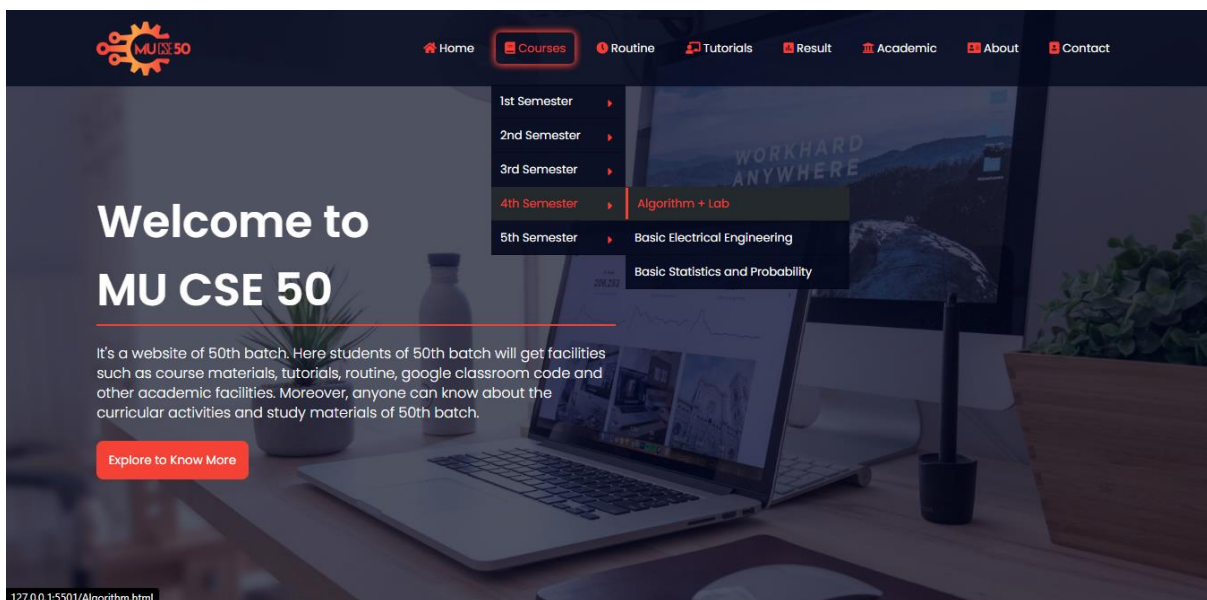


Image: 1

3.1.1 Navigation bar:

The navigation bar acts as a guide to a website. Depending on the navigation bar, how easy it will be for a user to explore this website. So we have used a multi-functional navigation bar on this website. So that there is a link to every page of this website. Some of the menus in this navigation bar have some submenus and in some cases those submenus and more submenus. Hovering over different menus will show submenus. Which is shown in 'Image-1'. We've added an interesting CSS style to the whole navigation bar.

This navigation bar is Responsive for mobile devices. When this website is opened on mobile, a bar icon will appear on the top right side. Clicking on that bar icon will open the navigation bar. Each menu here can be found in a list. When a menu is clicked, its submenus will gradually open at the bottom. Which is shown in 'Image-2'. Menus that do not have a submenu will be taken directly to the address of that menu. We've added icons and hover effects to make this navigation bar more attractive. The navigation bar will be the same on every page of this website.

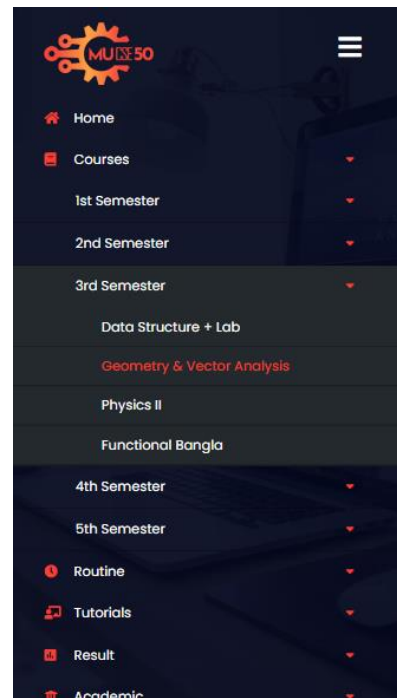


Image-2

3.1.2 Header image slider:

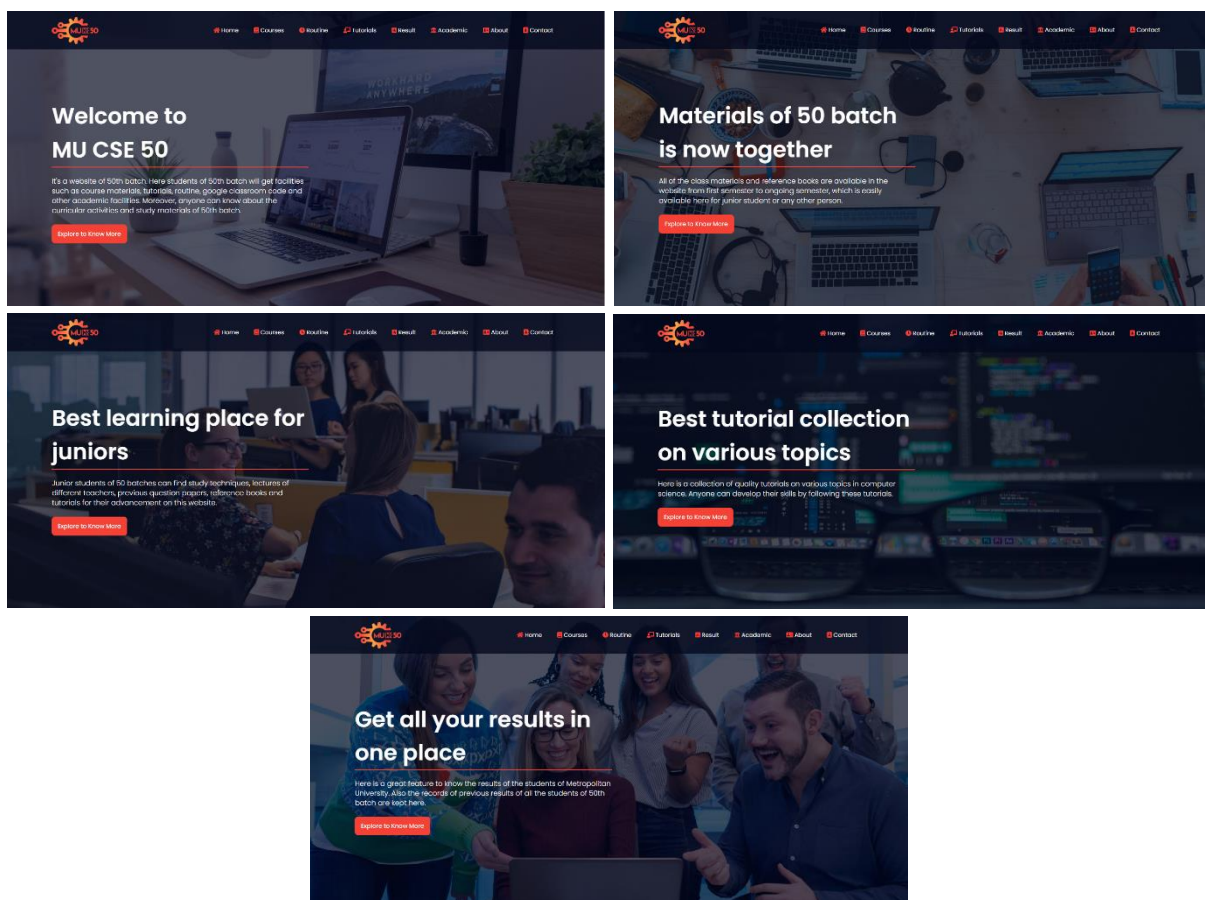


Image-3

We have added header text and image slider just below the taskbar on the homepage. This text slider gives an overview of the top 5 features of this website. Images and texts change automatically every 4 seconds. And the image has a zoom out effect. Which will make the website more attractive. There is a button which, if clicked, will take you to the next step of the page. These five slides are given in phases in 'Image-3'.

3.1.3 Today's Class Routine:

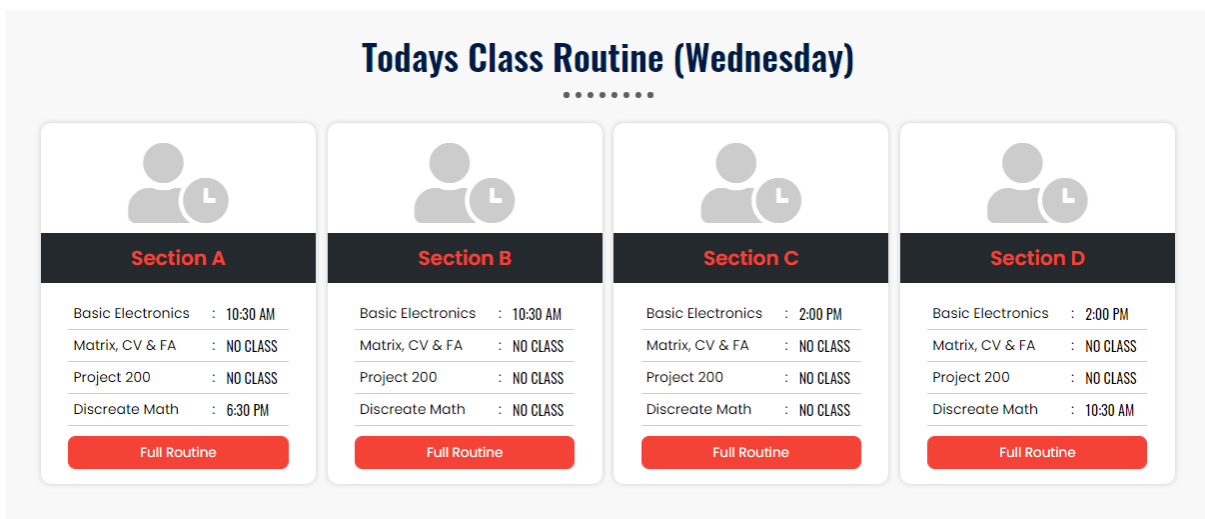


Image-4

In this part of the homepage we have arranged to do a daily routine show of four sections. Here are four cards for the four sections. The times of this routine will change automatically every day. Which is shown in 'Image-4'. Each card has a button at the bottom. Clicking on the button will open the whole routine page for that section. Icons and a hover effect have been added to make the cards look attractive. When this website is browsed on mobile, two cards will show together. Which is shown in 'Image-5'.

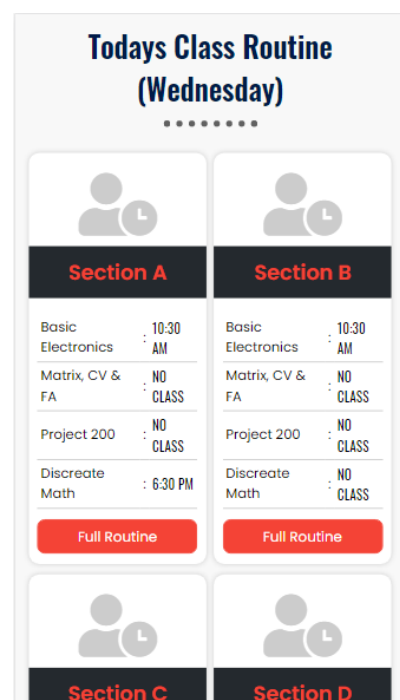


Image-5

3.1.4 Current Courses:

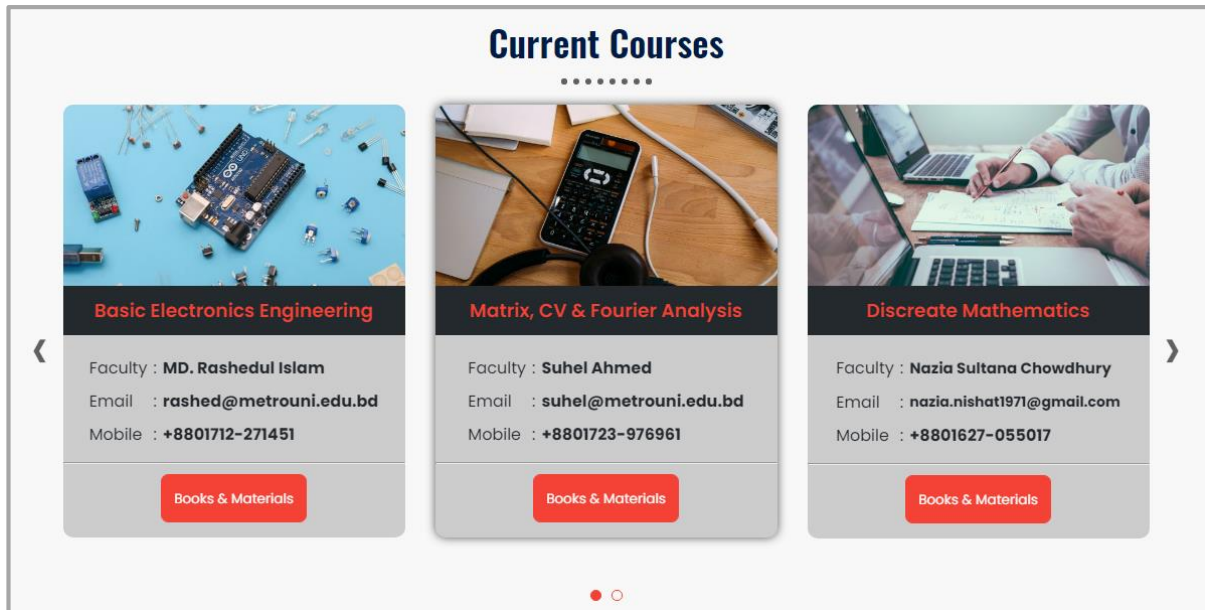


Image-6

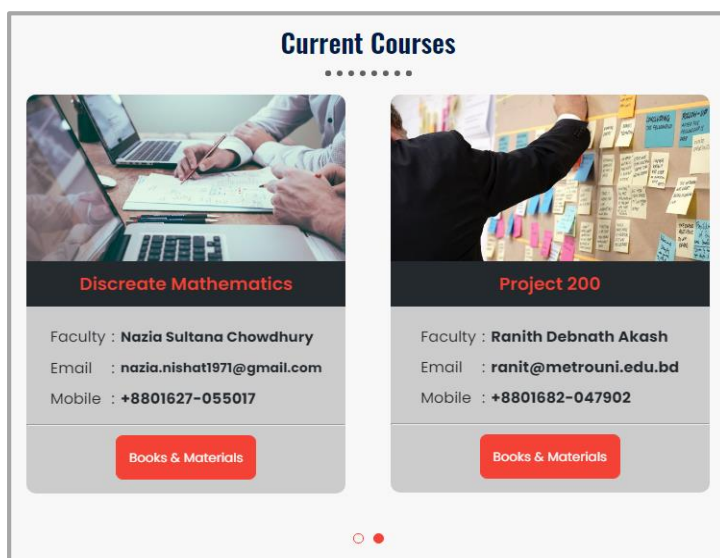


Image-7

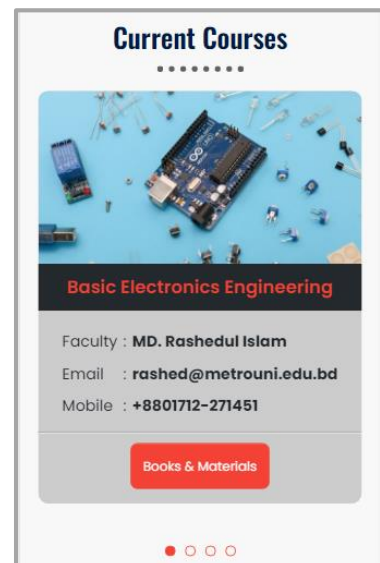


Image-8

In this part of the homepage, we've added information on 50 batches of running courses. We created separate cards for each course and added those cards as sliders. There is a button to get the course name, faculty contact information and all the materials of this course. Clicking on the button will open the full material page. These cards will show 3 cards for the big screen, 2 for the medium screen and 1 for the small screen. This section is shown in 'Image-6', 'Image-7' & 'Image-8' periodically.

3.1.5 Tutorials:

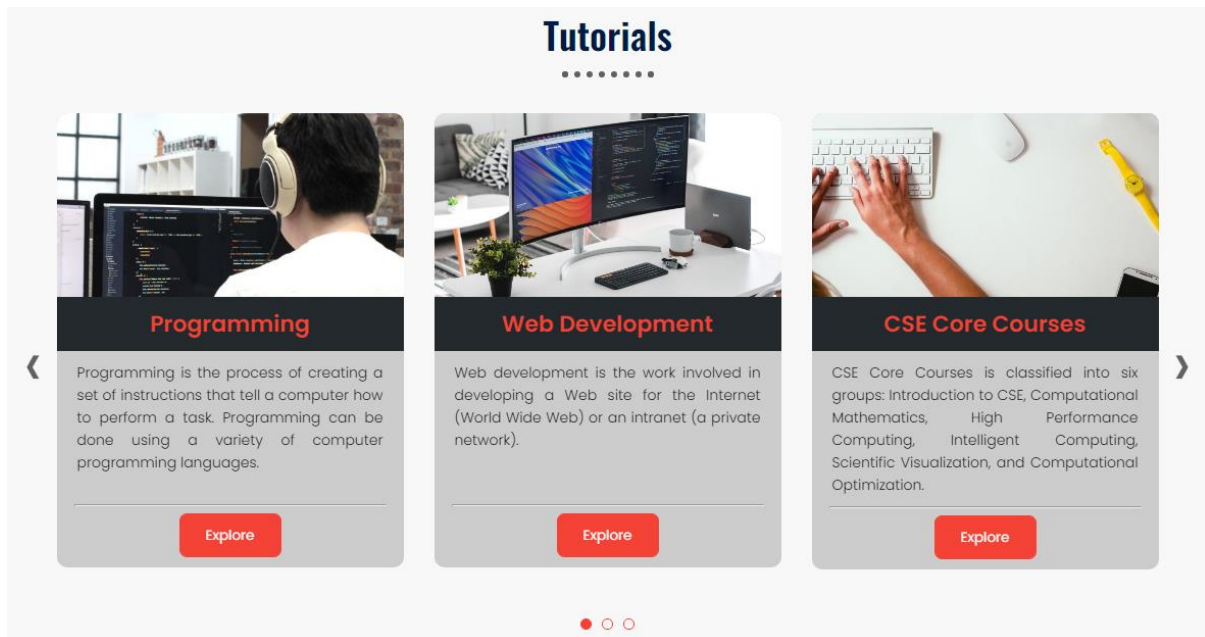


Image-9

The tutorial section of the homepage represents the tutorial pages of this website. This website includes tutorials on programming, web development, CSE core course, Android app development, UI / UX design, graphic design, video editing. There is a card on the homepage for all subjects. Here is a brief description of the subject on the cards and a button has been added. When this button is clicked, the tutorial page of this website will open. The tutorial cards are designed in the same way as the course cards on the homepage, with a slider attached, and similarly it will work as a course section for all devices. 'Image-9' shows some parts of it.

3.1.6 Skills of student's statistics:

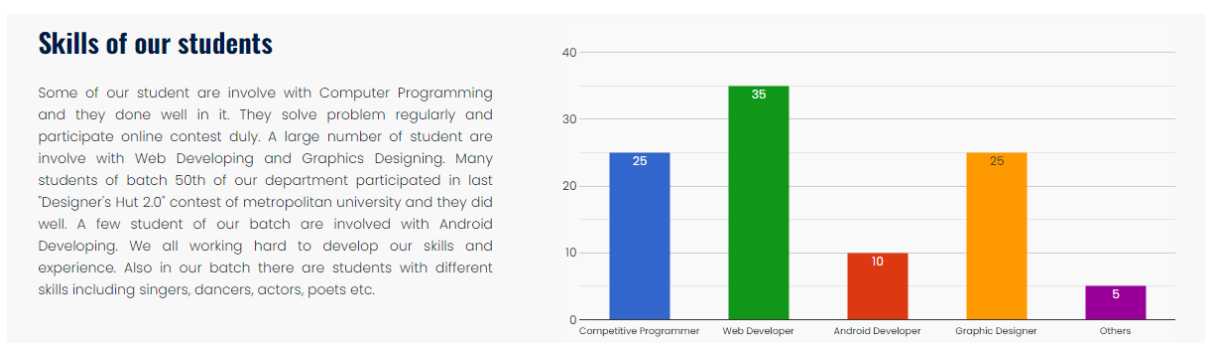


Image-10

This part of the homepage gives a brief description of the skills of our batch students. The left has a heading and a paragraph and the right is represented by a chart. In case of big screen, paragraphs and charts will show side by side. As shown in 'Image-10'. When this page is opened on mobile, the chart below the paragraph will show. As seen in 'Image-11'.

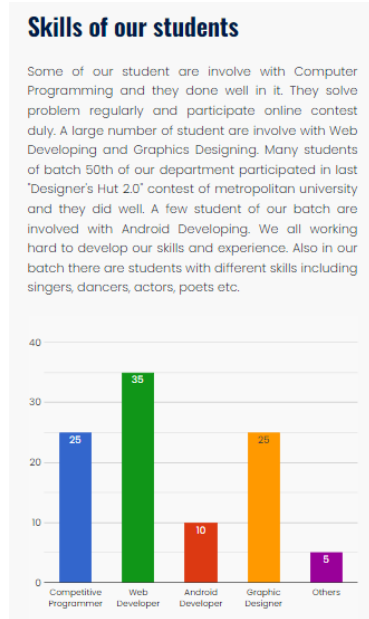


Image-11

3.1.7 IT support center:

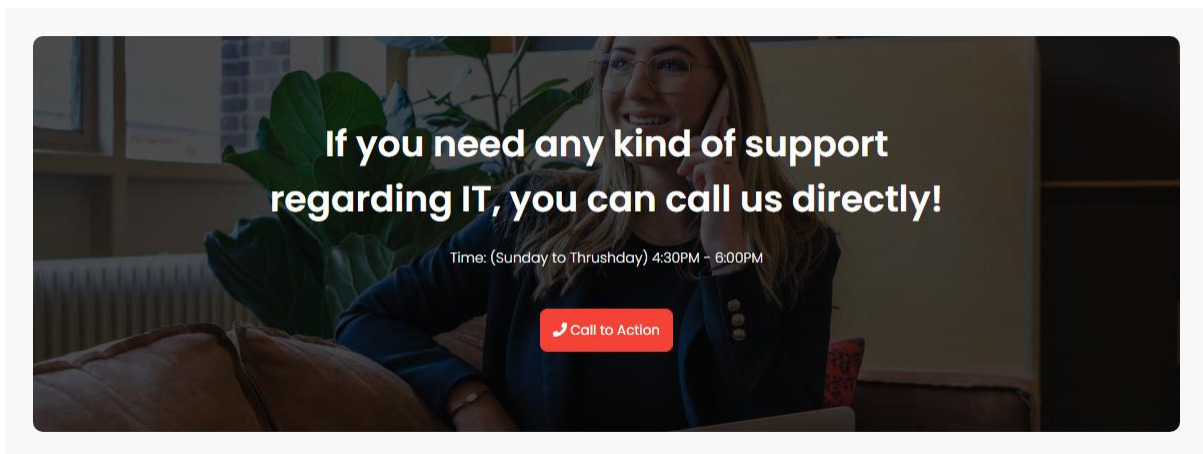


Image-12

Students will be able to solve any kind of IT problem from this website. The time of support is specified which is showing here and there is a button. By clicking on this button the user can call us directly. Will look like 'Image-12' for large screen and will look like 'Image-13' for small screen.

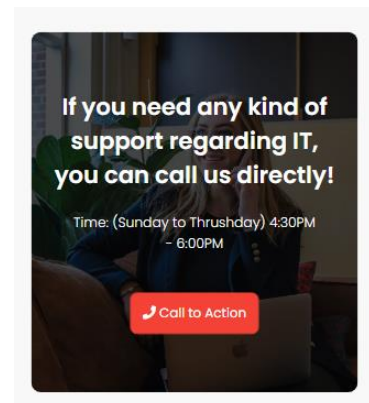


Image-13

3.1.8 Footer:

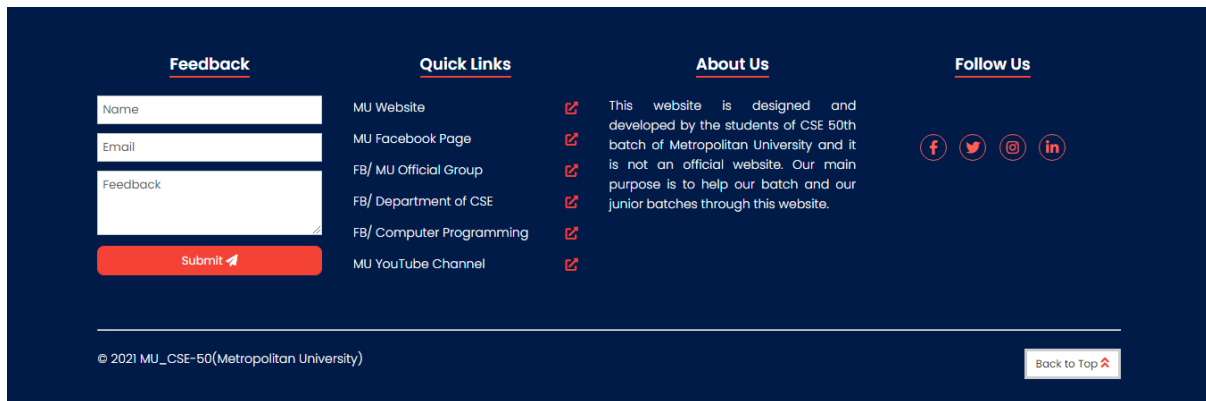


Image-14

The bottom part of a webpage is usually called the footer. The footer section of this website will be the same for each page. We have divided the footer section into four parts. First I have given a feedback form where the user can give feedback. Then we added some quick links. Here are some important links from the university. Then we added a short paragraph about this website in

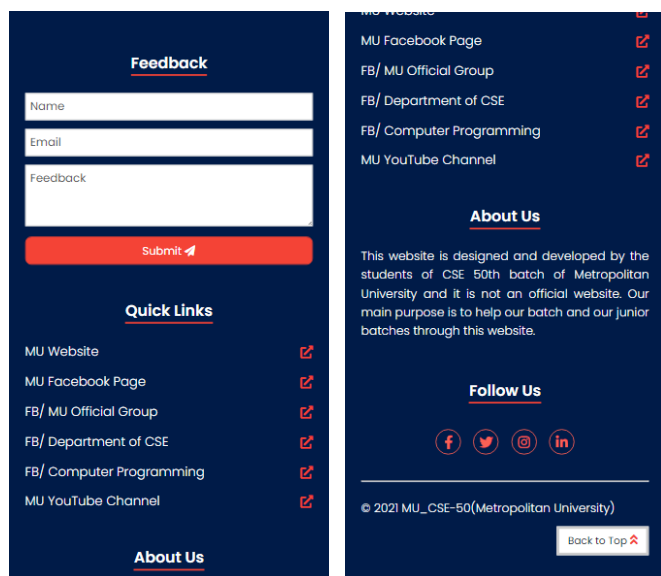


Image-15

'About Us'. Then we added some social media links. Then below I added the copyright message and the 'back to top' button. By clicking on this button a user can go to the top of the page again. Here 'Image-14' and 'Image-15' show desktop view and mobile view respectively.

3.2 How a feedback or contact form works

Feedback and contact on a website is a very important issue. A user may need to contact the owner of the website or give feedback about the website. For the convenience of the user, we have used the form for feedback and contact on this website. We have adopted a special method to store this data. That is, we have linked the HTML form with the Google form. When a user gives data input in HTML form, it will be received by Google form and after the data is stored in Google form, we can see it in Google sheet. The process is shown by 'Image-17'. When the form is submitted, it will show a success (Image-16) message, otherwise it will show error message.

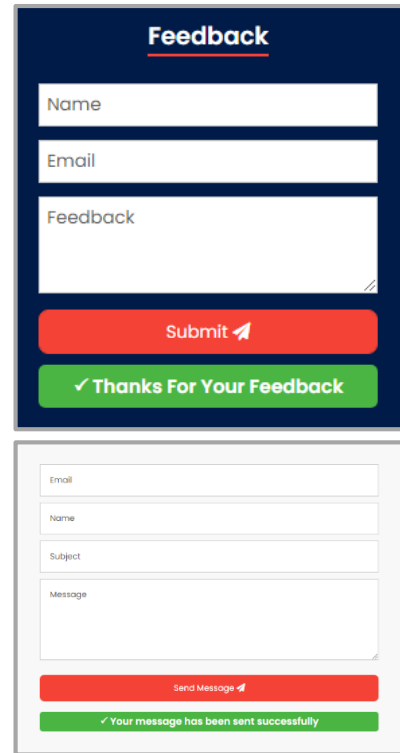


Image-16

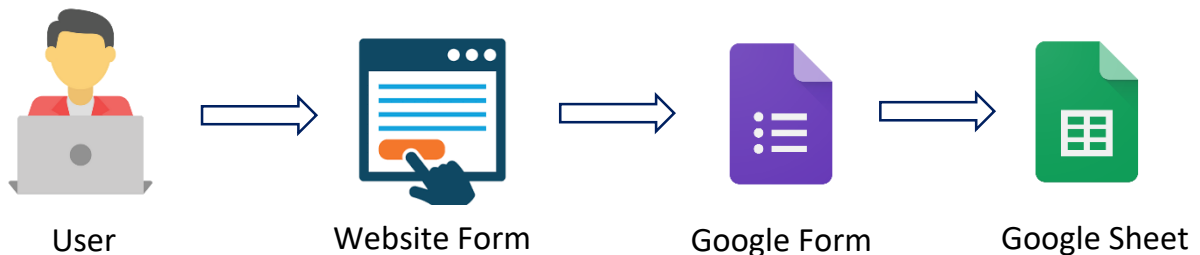


Image-17

Feedback from some of the students in our batch and a test message are shown below (Image-18).

	A	B	C	D	E	F
	Email Address	Name	Feedback	Subject	Message	Timestamp
11	sabbirislam78377@gmail.com	Sabbir Islam 201.010	Nice and helpful website. Well made. It will helpful for each student in our batch			8/11/2021 16:34:25
12	falahahmedshakib170@gmail.com	Falak Ahmed Shakib	Very nice and user friendly. A lot is being found very easily and something new is going to be known.			8/11/2021 16:44:11
13	pcsdasdp@gmail.com	Amob	Smoother then any other sites to surf. This is a complete package of professionalism.			8/11/2021 18:08:20
14	sayiansadislam@gmail.com	Sadia Islam	Such a great and helpful website!Can easily know about the courses and find course materials tool			8/11/2021 21:46:11
15	nowshinsharmin.mu@gmail.com	Nowshin	Wow			8/12/2021 20:51:00
16	hadunnahyan9@gmail.com	Md. Hadi Un Nahyan Chowdhury	It is a good site indeed!! Easy to explore everything. Nicely created. Appreciate it.			8/13/2021 19:06:46
17	dpinak20@gmail.com	Pinak Das	Good job			8/13/2021 22:22:01
18	mrmamun20212022@gmail.com	Mamunur Rashid Mamun		test	Hi, this is a test message	8/15/2021 10:27:20

Image-18

3.3 Course pages (*all semesters*)

The course pages of this website include every completed and ongoing course of the CSE 50 batch. There are separate webpages for each subject. Where course teacher information, course outline, reference book, exam questions and all class material can be found. Links to online tutorials on some subjects can also be found on these pages.

The screenshot shows the 'Algorithm + Lab' course page. At the top, there is a navigation menu with links for Home, Courses, Routine, Tutorials, Result, Academic, About, and Contact. The main header area features the course title 'Algorithm + Lab' and the course code 'CSE-231 + CSE-232'. The page is divided into several sections:

- Faculty Info:** A profile card for Ranith Debnath Akash, Senior Lecturer, Department of CSE, Metropolitan University.
- Course Outline:** A section with a 'Course Outline' link.
- Reference Book:** A section with a '(File Not Found)' message.
- Exam Questions:** A section with links for 'Mid Term', 'Class Test', and 'Final'.
- Class Materials:** A grid of links for various topics: Vector, Introduction to Algorithm, Complexity of Algorithms, Complexity (Big Oh), Big Omega, Big Theta, Little oh, Little omega, Big-Oh-Examples, Big-Oh-of-Codes, Survey of Common Running Times, and Graph Intro (Basic Defn. and Applcn).
- Contests for Lab:** A grid of links for various contests: Vector/Array (Easy), Vector/Array (Medium), Stack / Queue / DeQue (Practice), Graph Traversal (BFS/DFS), Greedy, Complete Search #1 (Iterative), and Algorithm Lab Final Phase#1 (For Pass Marks).

At the bottom of the page, there is a link: [Click here to get online tutorials for this subject](#)

Image-19

'Image-19' shows the desktop view from the beginning of a page to the top of the footer. Here are three screenshots merged. When a material is clicked, the file will open in a new tab. This pages are also responsive for small screen devices.

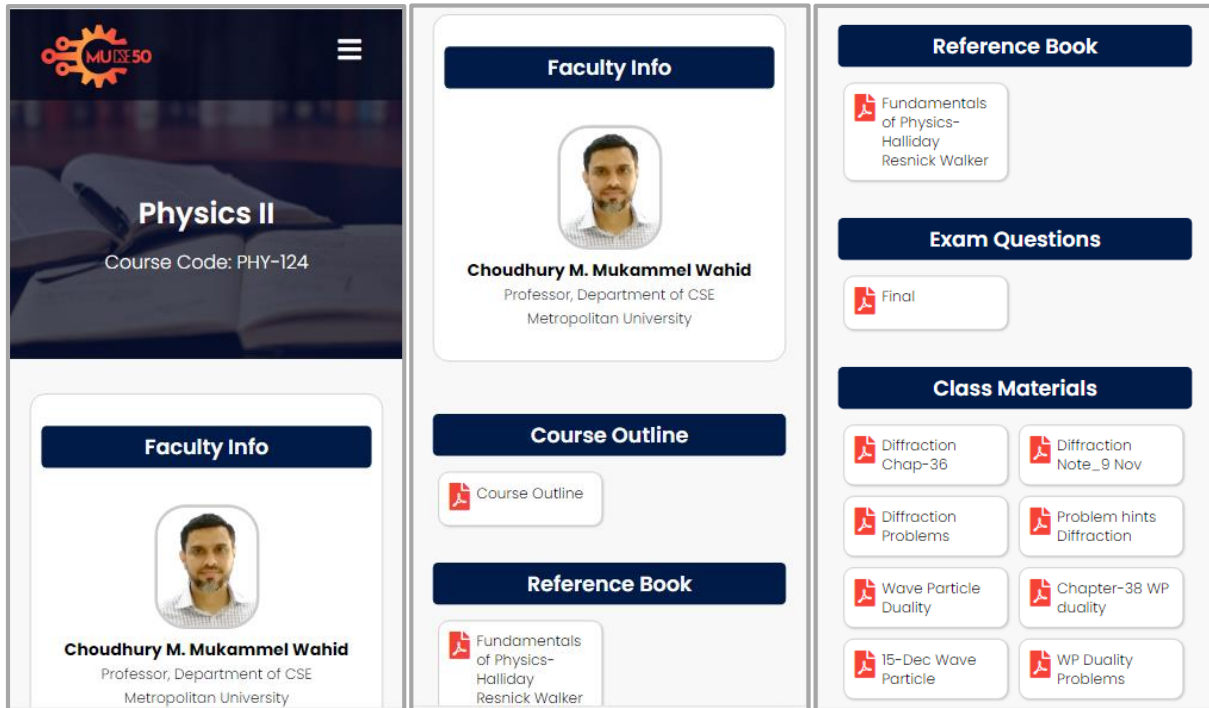


Image-20

How to show these pages on mobile is shown in 'Image-20'. Three screenshots in a row are given starting from the left. And below all there will be footer which is shown in [3.1.8].

3.4 Routine pages (*all sections*)

This part of the website has four webpages for the routine of the four sections of the Fifty Batch. Here students will be able to view their class routines and online class codes directly and download them in PDF format.



Google classroom code

Code	Course Name	Faculty	Online class code
CSE 131	Basic Electronics Engineering	Md. Rashedul Islam (MRI)	o5vi544
CSE 125	Discrete Mathematics	Nazia Nishat (NN)	aun7oqi
CSE 200	Project	Ranit Debnath Akash (RDA)	ciglkbv
MAT 135	Matrices, CV & Fourier Analysis	Suhel Ahmed (SA)	khakrzv

Class Routine

Time	10.30 AM to 11.50 AM			2.00 PM to 3.20 PM			3.30 PM to 4.50 PM			5.00 PM to 6.20 PM			6.30 PM to 7.50 PM		
Day	Course Code	Course Name	Faculty	Course Code	Course Name	Faculty	Course Code	Course Name	Faculty	Course Code	Course Name	Faculty	Course Code	Course Name	Faculty
SAT	-	-	-	-	-	-	CSE 200	Project	Ranit Debnath Akash (RDA)	CSE 200	Project	Ranit Debnath Akash (RDA)	CSE 125	Discrete Mathematics	Nazia Nishat (NN)
MON	CSE 131	Basic Electronics Engineering	Md. Rashedul Islam (MRI)	-	-	-	-	-	-	-	-	-	-	-	-
TUE	-	-	-	MAT 135	Matrices, CV & Fourier Analysis	Suhel Ahmed (SA)	-	-	-	-	-	-	-	-	-
WED	CSE 131	Basic Electronics Engineering	Md. Rashedul Islam (MRI)	-	-	-	-	-	-	-	-	-	CSE 125	Discrete Mathematics	Nazia Nishat (NN)
THU	-	-	-	MAT 135	Matrices, CV & Fourier Analysis	Suhel Ahmed (SA)	-	-	-	-	-	-	-	-	-

If you want to download the routine, click on the download button below

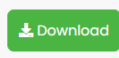


Image-21

'Image-21' shows the desktop view from the beginning of a page to the top of the footer. Here are two screenshots merged. There are separate pages for all sections like this page. This pages are also responsive for small screen devices. 'Image-22' shows how this page looks after opening on mobile. Here are three consecutive screenshots from the left representing the view of the mobile.

Class Routine :: Section-A

Google classroom code

Code	Course Name	Faculty	Online class code
CSE 131	Basic Electronics Engineering	Md. Rashedul Islam (MRI)	o5vl544
CSE 125	Discrete Mathematics	Nazia Nishat (NN)	aun7oqi

Class Routine

Time	10.30 AM to 11.50 AM			2.00 PM to 3.00 PM	
Day	Course Code	Course Name	Faculty	Course Code	Course Name
SAT	-	-	-	-	-
MON	CSE 131	Basic Electronics Engineering	Md. Rashedul Islam (MRI)	-	-
TUE	-	-	-	MAT 135	Matrix CV & Fourier Analysis
WED	CSE 131	Basic Electronics Engineering	Md. Rashedul Islam (MRI)	-	-
THU	-	-	-	MAT 135	Matrix CV & Fourier Analysis

If you want to download the routine, click on the download button below

[Download](#)

Feedback

Name

Email

Feedback

[Submit](#)

Image-22

3.5 Tutorial pages

This part of the website contains tutorials on various topics. Here we have linked the tutorial separately for each topic and gave an initial idea about each topic. Here we have presented the pages of the tutorial in two ways. We have presented the pages of tutorials on programming, web development, CSE core courses, graphic design, video editing in one way and the pages of Android app development and UI / UX design in another way. These two methods are described below.

3.5.1 Programming, Web development, CSE core courses, Graphic design, Video editing:

On these pages we made a separate card for each topic and gave a basic idea about the topic and added a button to enter the link of the tutorial. By clicking on the button the user will be able to enter the link of the tutorial and it will open in a new tab.









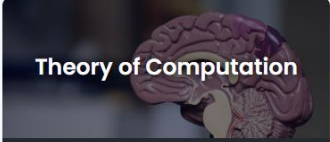


 <h3>Structured Programming</h3> <p>Structured programming (sometimes known as modular programming) is a programming paradigm that facilitates the creation of programs with readable code and reusable components.</p> <p>Start Learning</p>	 <h3>Data Structure</h3> <p>In computer science, a data structure is a data organization, management, and storage format that enables efficient access and modification.</p> <p>Start Learning</p>	 <h3>Algorithm</h3> <p>Algorithm is a finite sequence of well-defined, computer-implementable instructions, typically to solve a class of specific problems or to perform a computation.</p> <p>Start Learning</p>
 <h3>Discrete Mathematics</h3> <p>Discrete Mathematics is a branch of mathematics involving discrete elements that uses algebra and arithmetic.</p> <p>Start Learning</p>	 <h3>Numerical Methods</h3> <p>Numerical methods are techniques to approximate mathematical procedures (example of a mathematical procedure is an integral).</p> <p>Start Learning</p>	 <h3>Operating System</h3> <p>An operating system is system software that manages computer hardware, software resources, and provides common services for computer programs.</p> <p>Start Learning</p>
 <h3>Theory of Computation</h3> <p>Theory of computation (TOC) is a branch of Computer Science that is concerned with how problems can be solved using algorithms and how efficiently they can be solved.</p> <p>Start Learning</p>	 <h3>Compiler Design</h3> <p>Compiler design covers basic translation mechanism and error detection & recovery. It includes lexical, syntax, and semantic analysis as front end, and code generation and optimization as back-end.</p> <p>Start Learning</p>	 <h3>Artificial Intelligence</h3> <p>Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions.</p> <p>Start Learning</p>

Image-23

'Image-23' shows the desktop view from the beginning of a page to the top of the footer. Here are three screenshots merged. This image gives a detailed description of a tutorial page. This is how the pages of each tutorial are designed and working in the same way.

This pages are also responsive for small screen devices. 'Image-24' shows how this page looks after opening on mobile. Here are three consecutive screenshots from the left representing the view of the mobile.

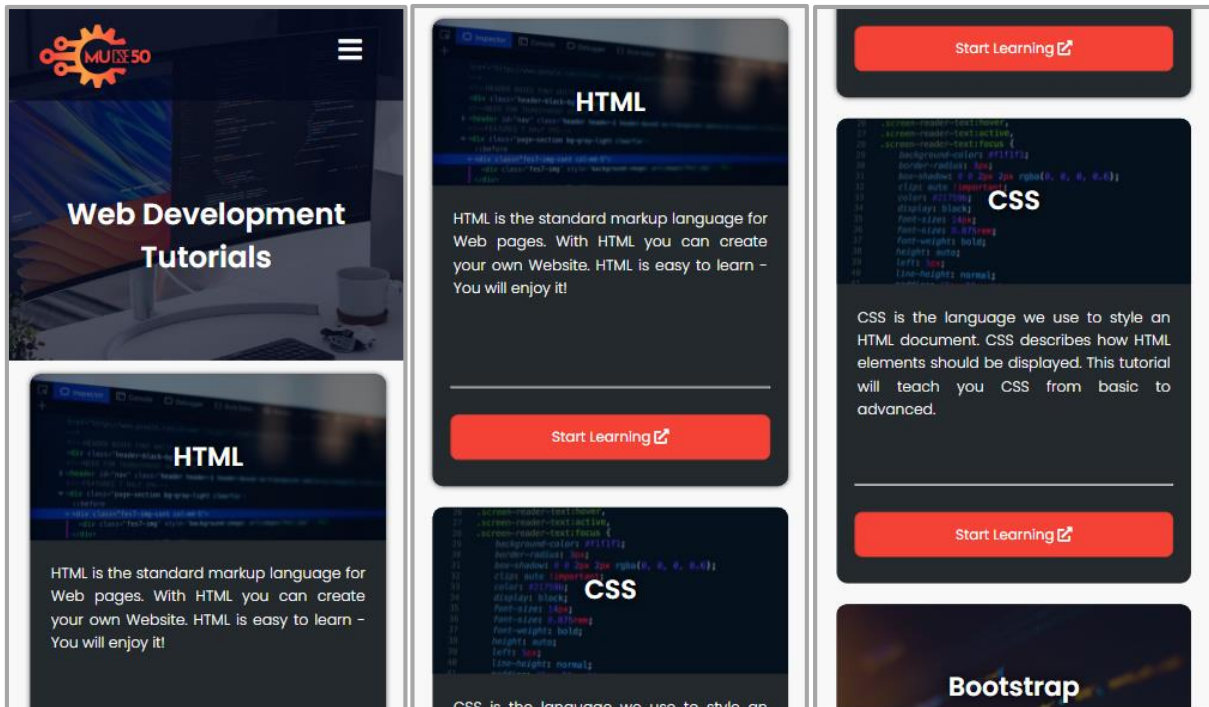


Image-24

3.5.2 Android app development, UI / UX design:

We've redesigned the Android App Development and UI / UX Design tutorial pages a little differently. Here on the left I have given a detailed account of this subject and mentioned some of the reasons for learning this subject. Added a button on the right and added a nice CSS style with background image to the whole div.

'Image-25' shows the desktop view from the beginning of a page to the top of the footer. Here are two screenshots merged. This image gives a detailed description of these pages on desktop view.

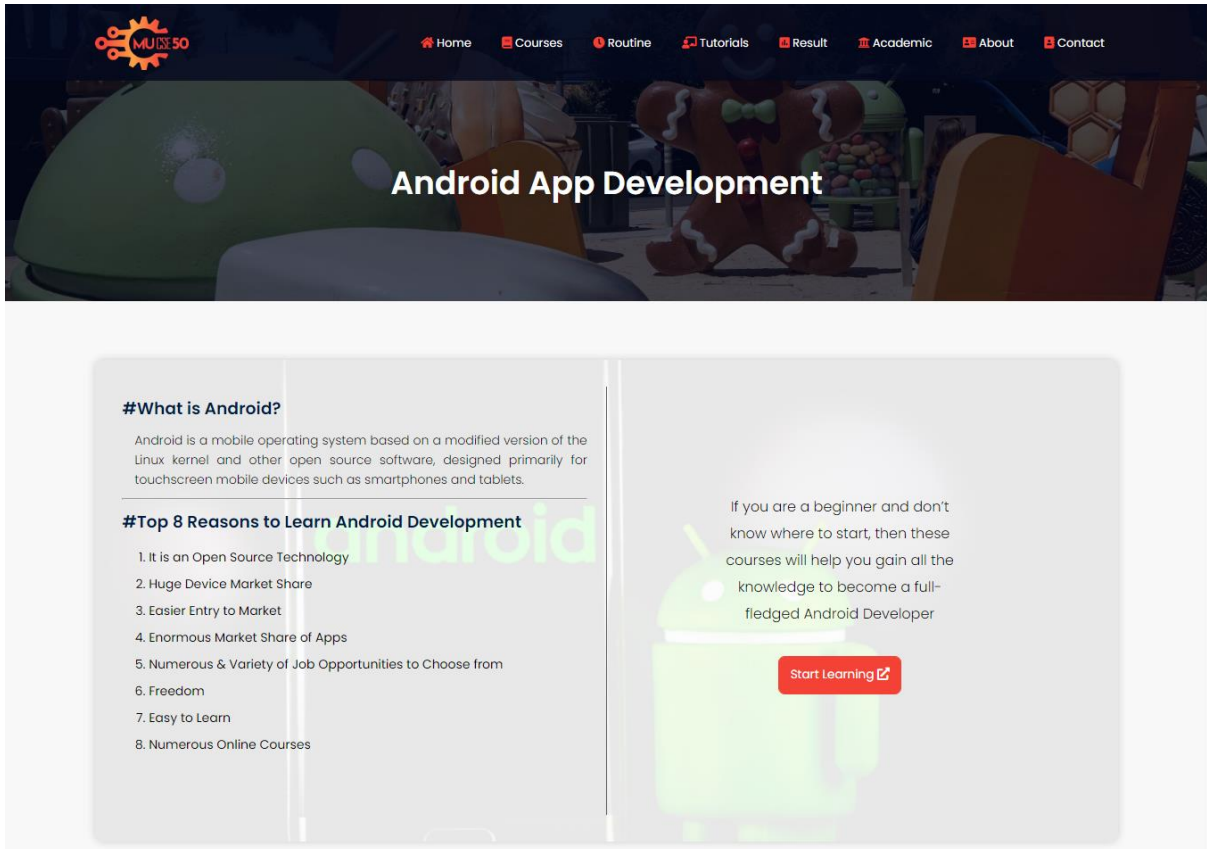


Image-25

This pages are also responsive for small screen devices. 'Image-26' shows how this page looks after opening on mobile. Here are three consecutive screenshots from the left representing the view of the mobile.

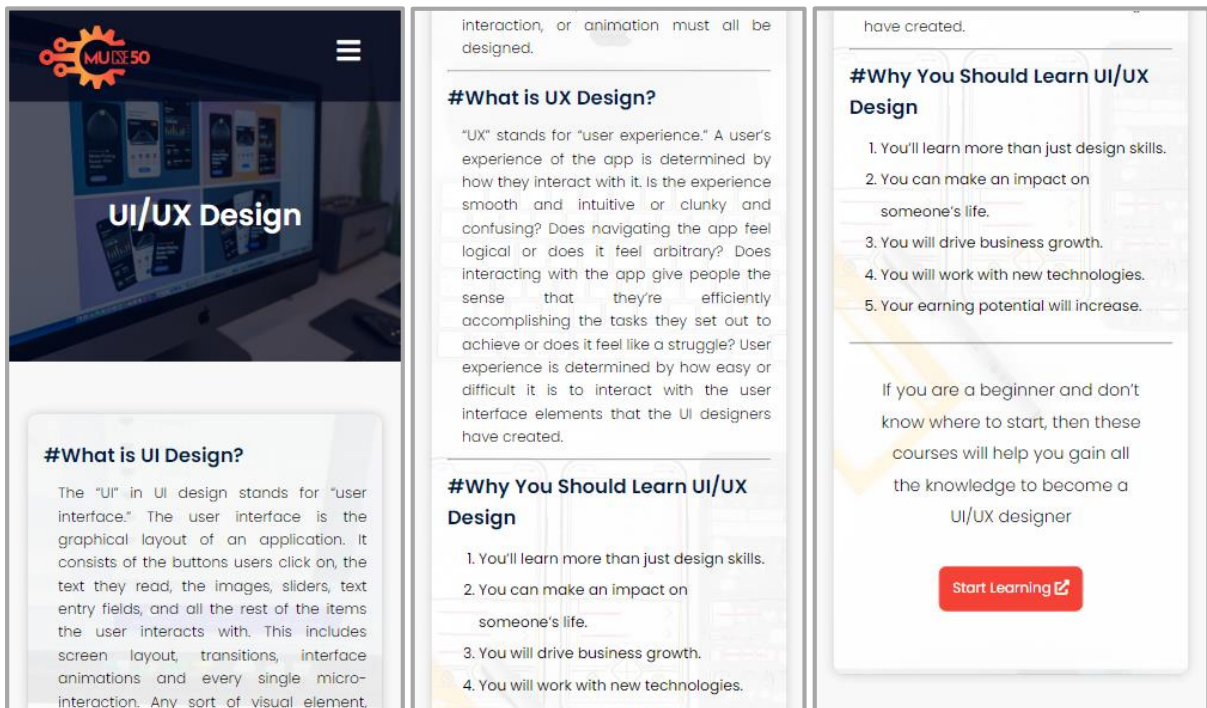


Image-26

3.6 Results

3.6.1 previous result records

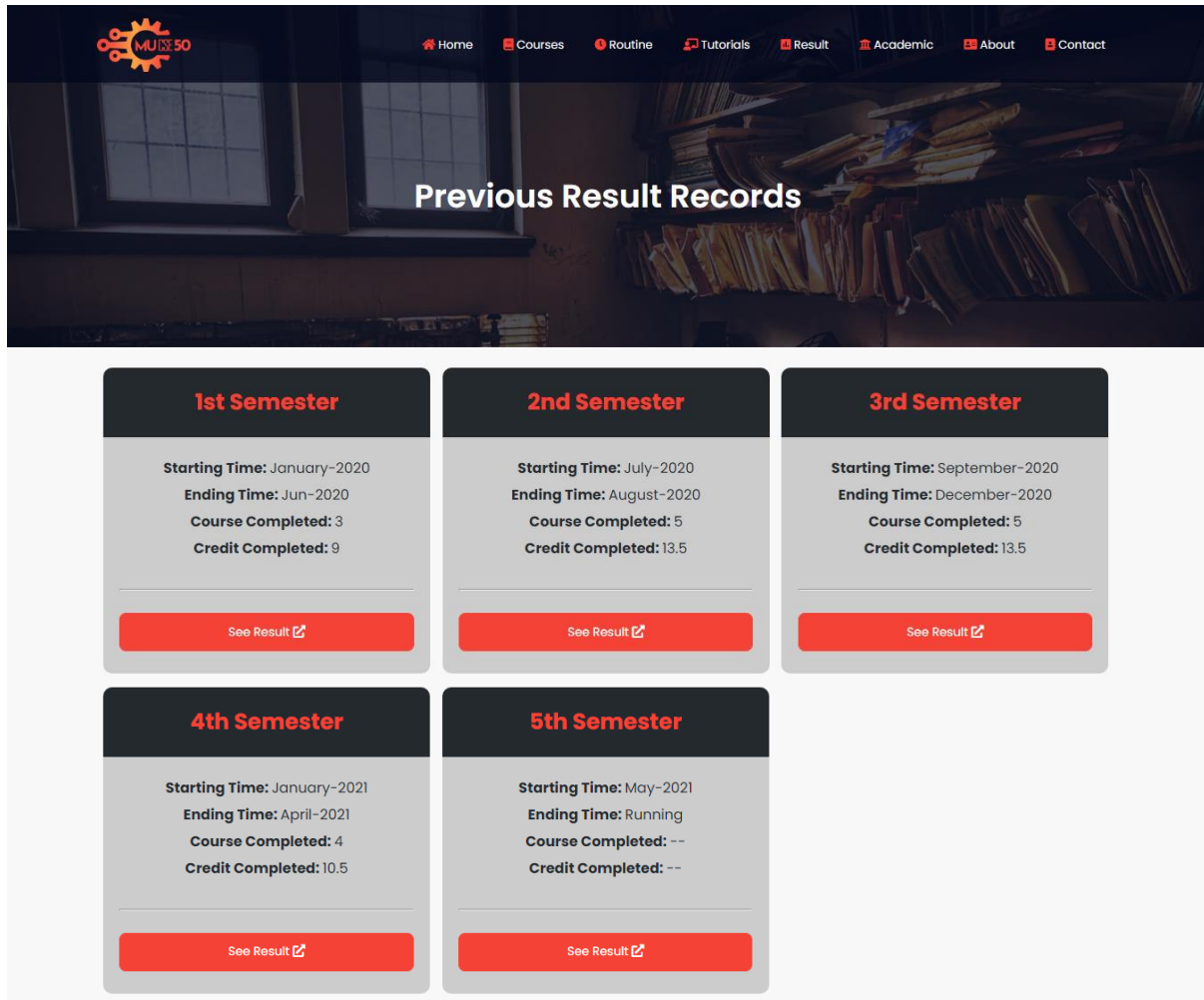


Image-27

In this part of the website, we have added the record of the results of the 50th batch completed semesters. In this part of the website we have added the record of the results of the 50th batch completed semesters. Information is provided separately for each semester. For example: Starting time, ending time, completed credits, completed courses. Finally, a button is provided by linking to the PDF file of the result. Clicking on the button will open the file in a new tab. 'Image-27' shows the desktop view from the beginning of this webpage to the top of footer. Here are two screenshots merged.

This pages are also responsive for small screen devices. 'Image-28' shows how this page looks after opening on mobile. Here are two consecutive screenshots from the left representing the view of the mobile.

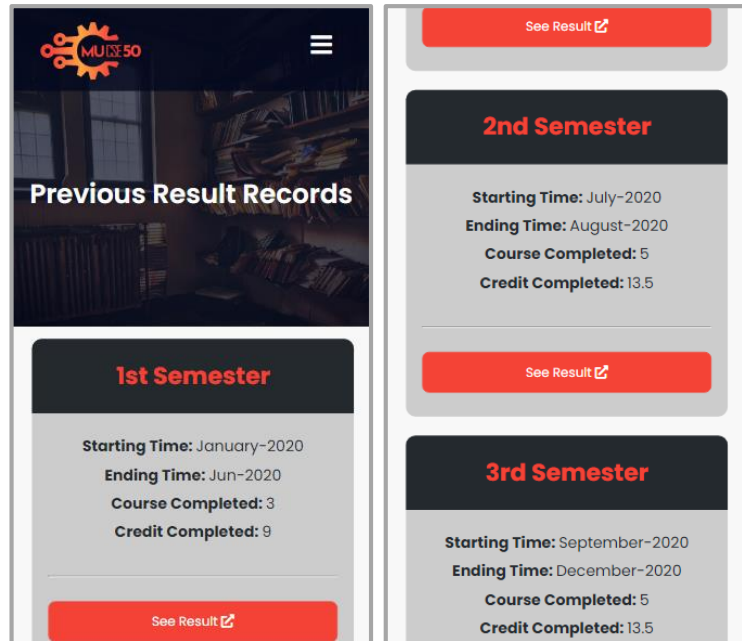


Image-28

3.6.2 1-Stop service

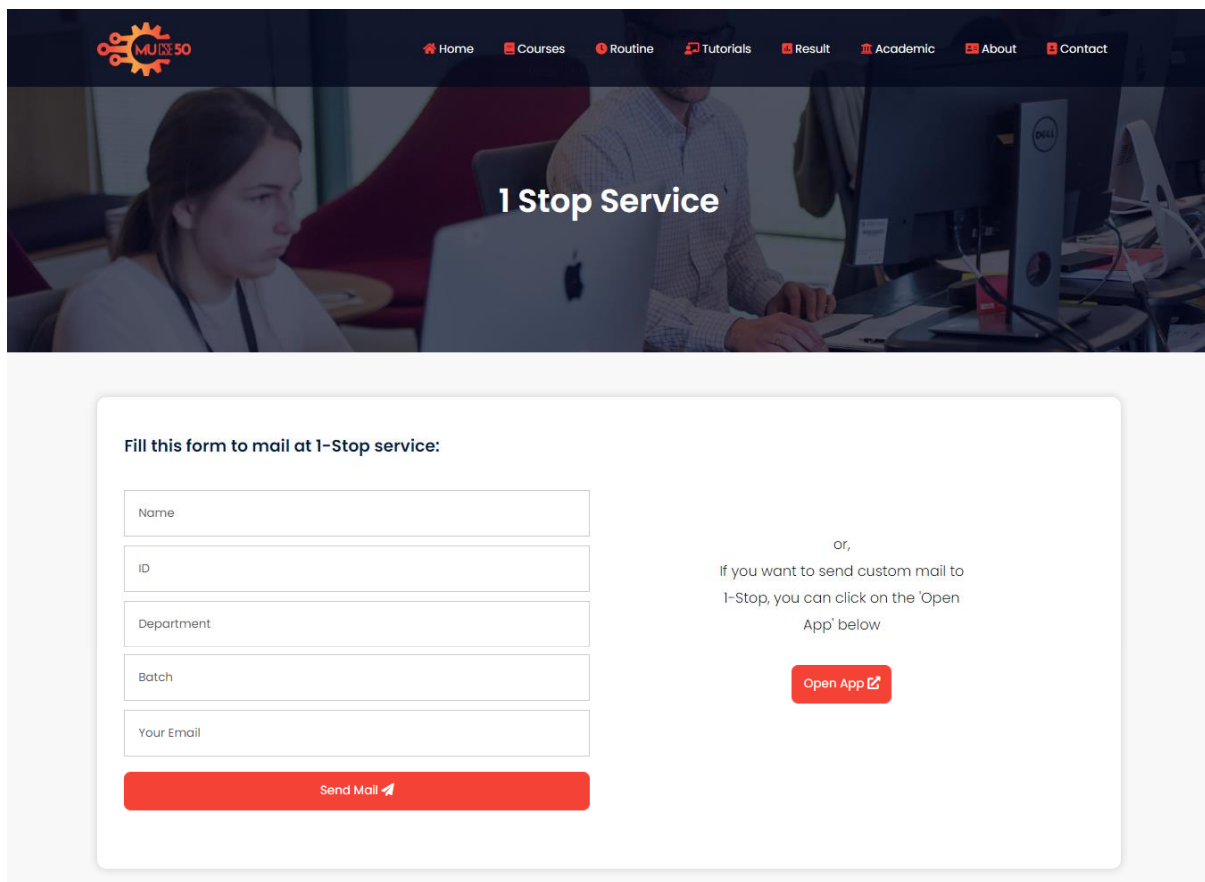


Image-29

The One Stop Service page has two options. 'Image-29' shows the desktop view of the page. There is a form on the left. When this form is filled and submitted by the user, a mail will be sent to the 1-stop service of the university for the result and the user will also receive a mail. We did this via mail merge on Google Sheets. It will also show a success message after submitting the form. There is a button on the right. Clicking on it will open the mailing app on the device with 1-stop mail. In the case of the form, the mail that will go to 1-stop is shown in 'Image-30' and the mail that the user will receive is shown in 'Image-31'.

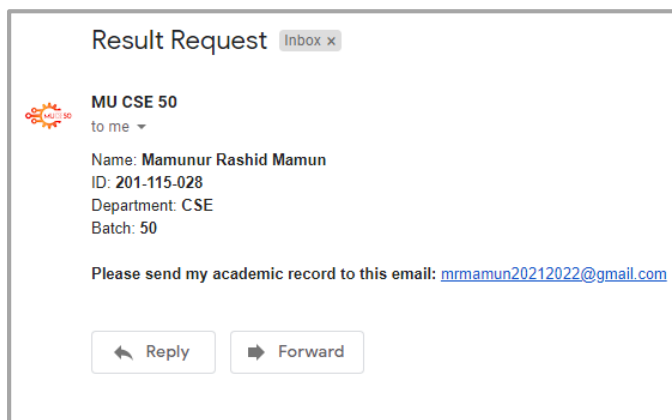


Image-30

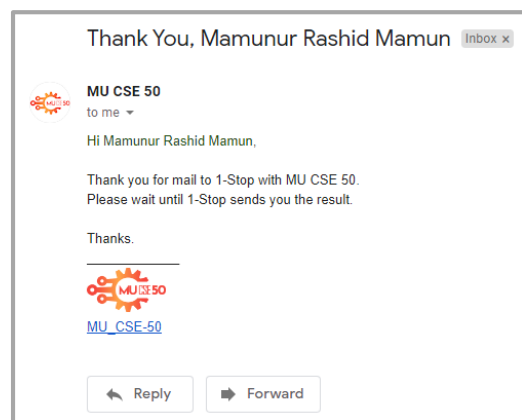


Image-31

This page is also responsive for small screen devices. 'Image-32' shows mobile view after form submission. For mobile, the form is at the top and the custom mail section is at the bottom.

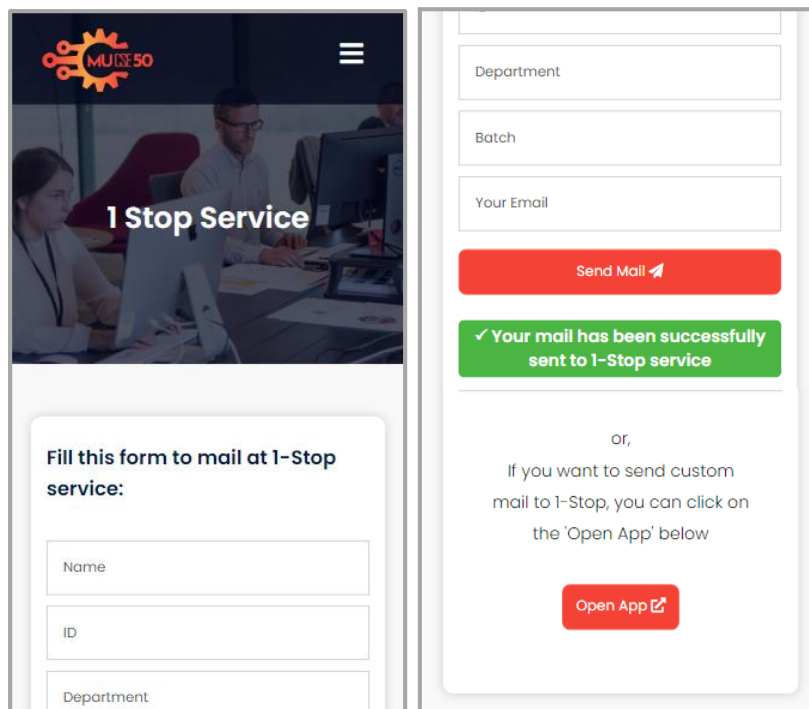


Image-32

3.7 Academic

3.7.1 Faculty Contact Information:

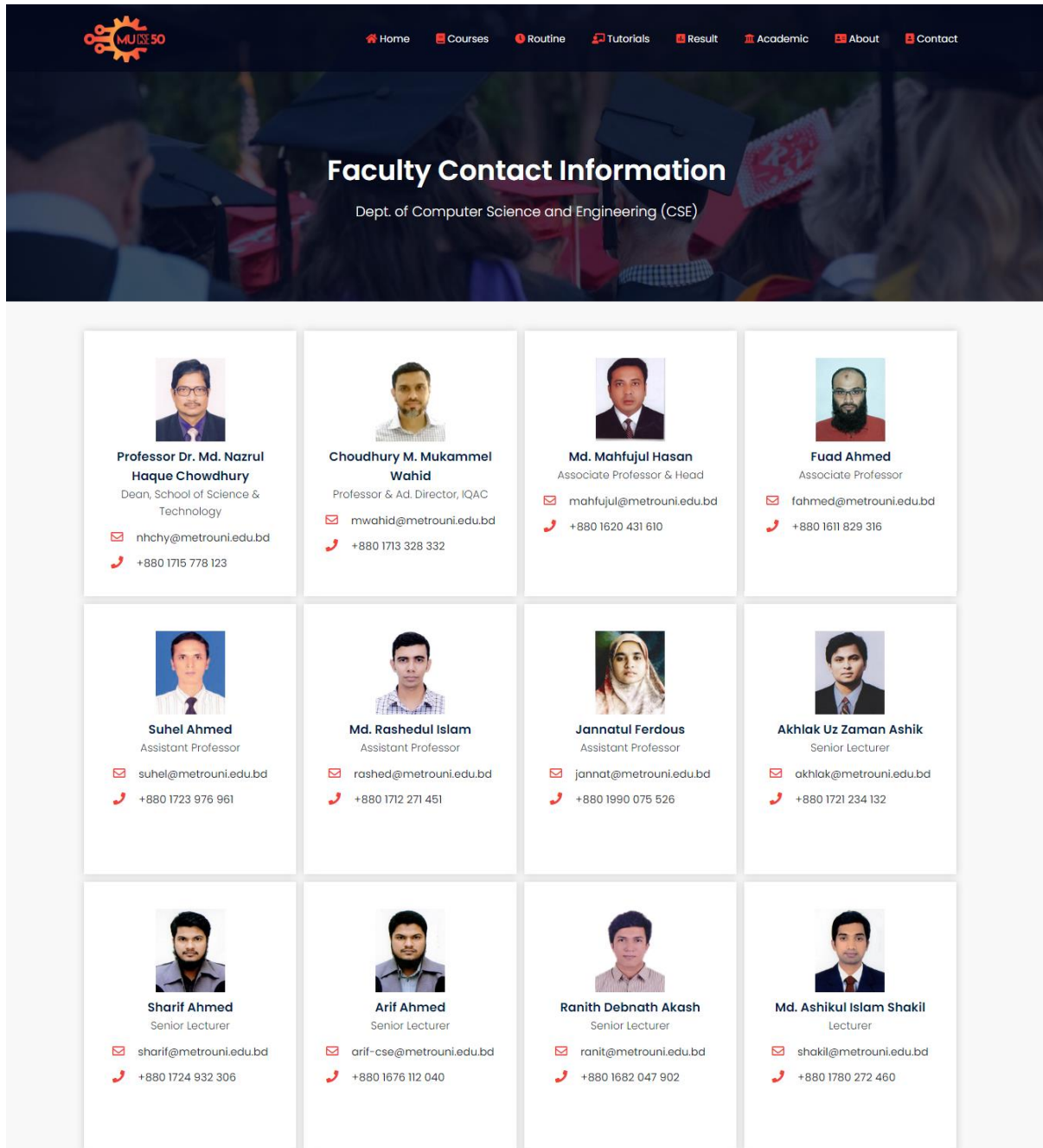


Image-33

The Faculty Contact Information page contains the names, surnames, emails and mobile numbers of all the teachers of the CSE department along with their pictures. 'Image-33' shows the desktop view of this page. Where 2 screenshots have been merged. Below is the footer section, which is not shown here.

This pages are also responsive for small screen devices. 'Image-34' shows how this page looks after opening on mobile. Here are two consecutive screenshots from the left representing the view of the mobile.

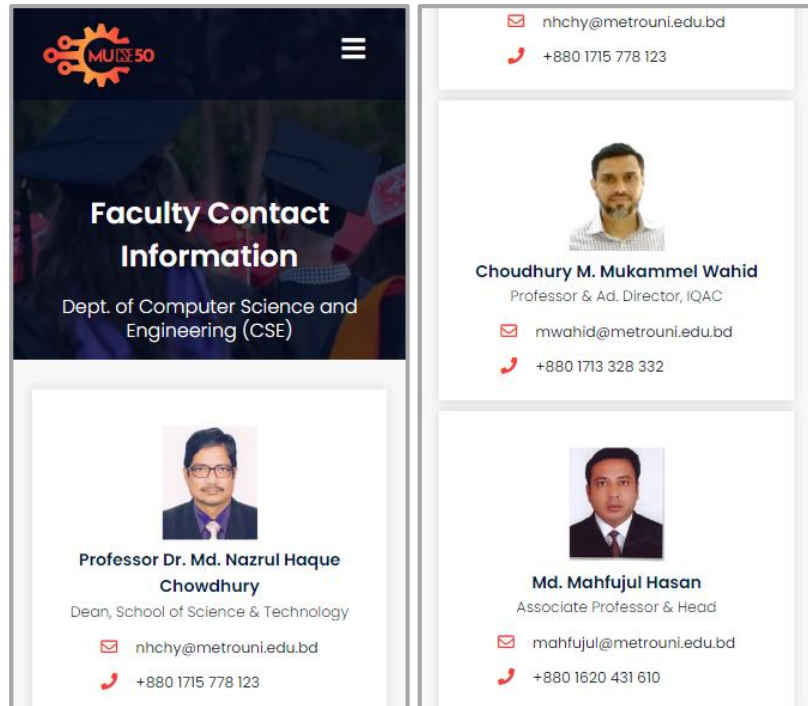


Image-34

3.7.2 Bus Schedule

The bus schedule page provides bus routes and bus times for teachers and students. Here the main part of this page is divided into 2 parts, the bus route on the left and the bus schedule on the right. Bus departure and arrival times are specified separately.

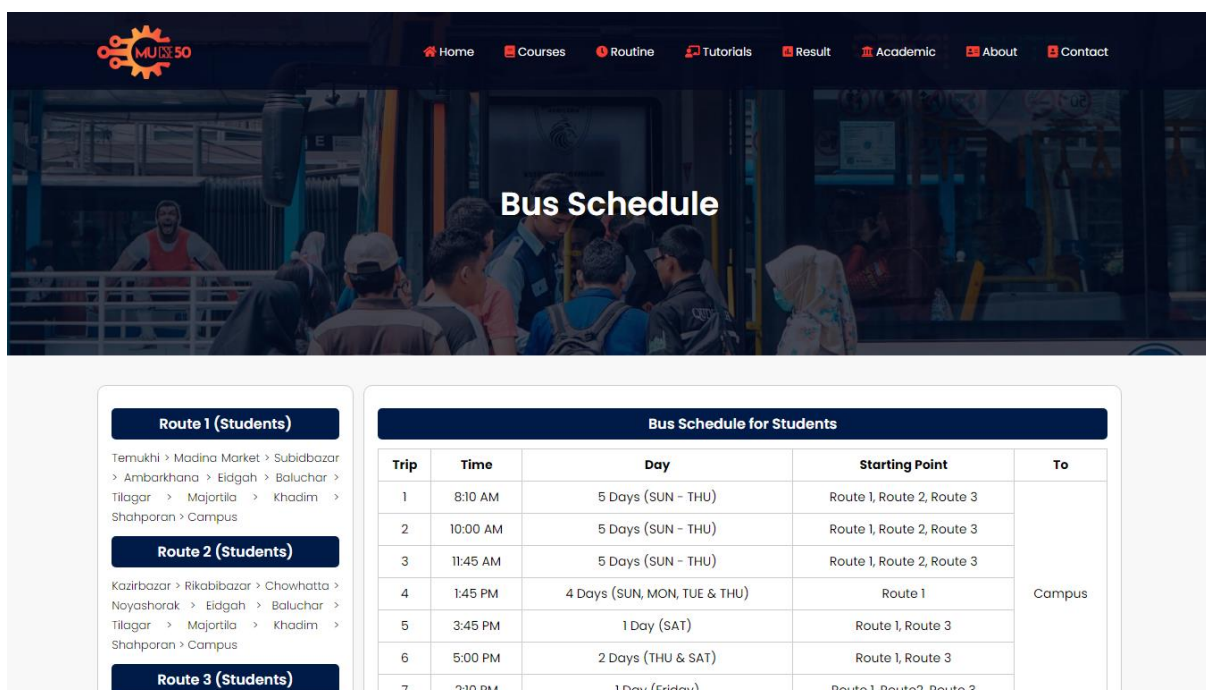


Image-35

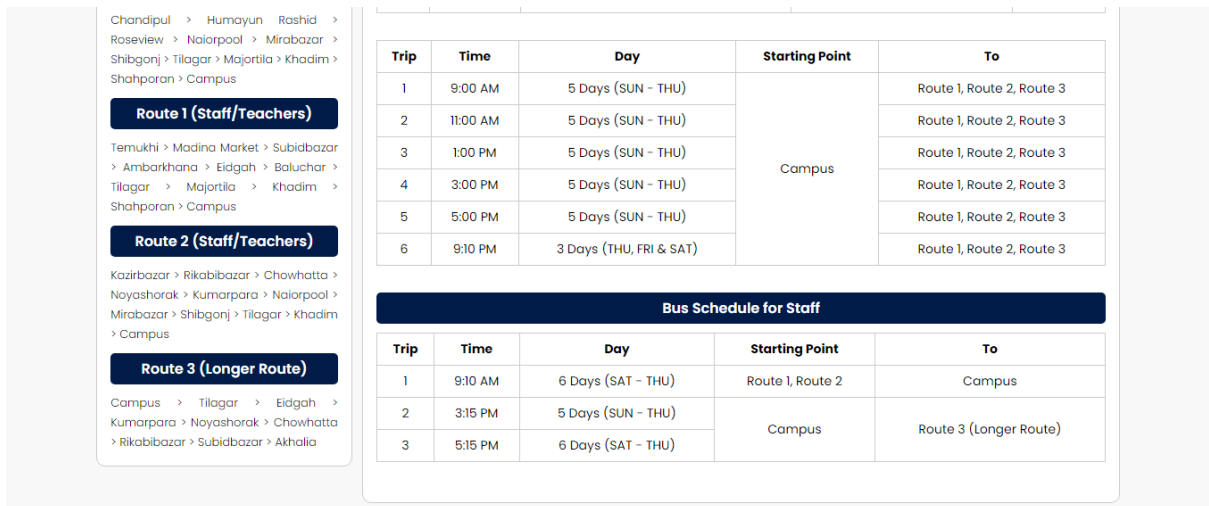


Image-35

'Image-35' shows a desktop view of the bus schedule page. This image has 2 screenshots merged and has a footer below which is not shown here.

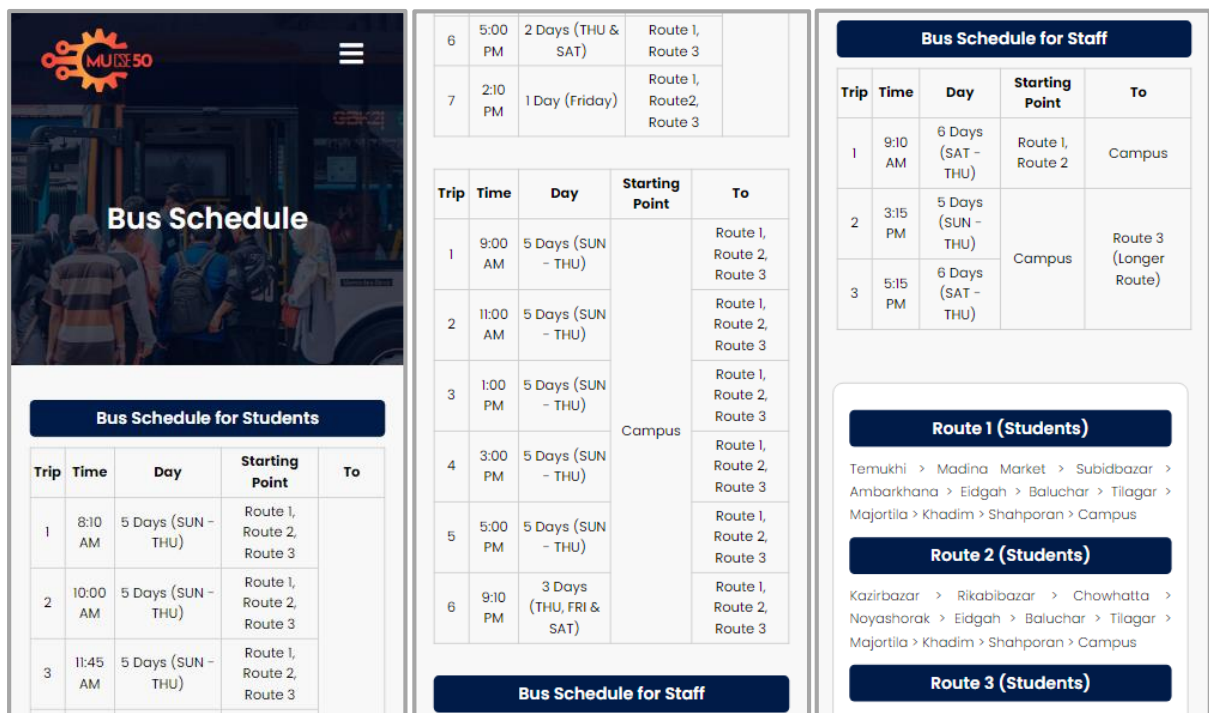


Image-36

The page is showing in 'Image-36' when opened on mobile. The mobile will first show the bus time and then the bus route.

3.8 About

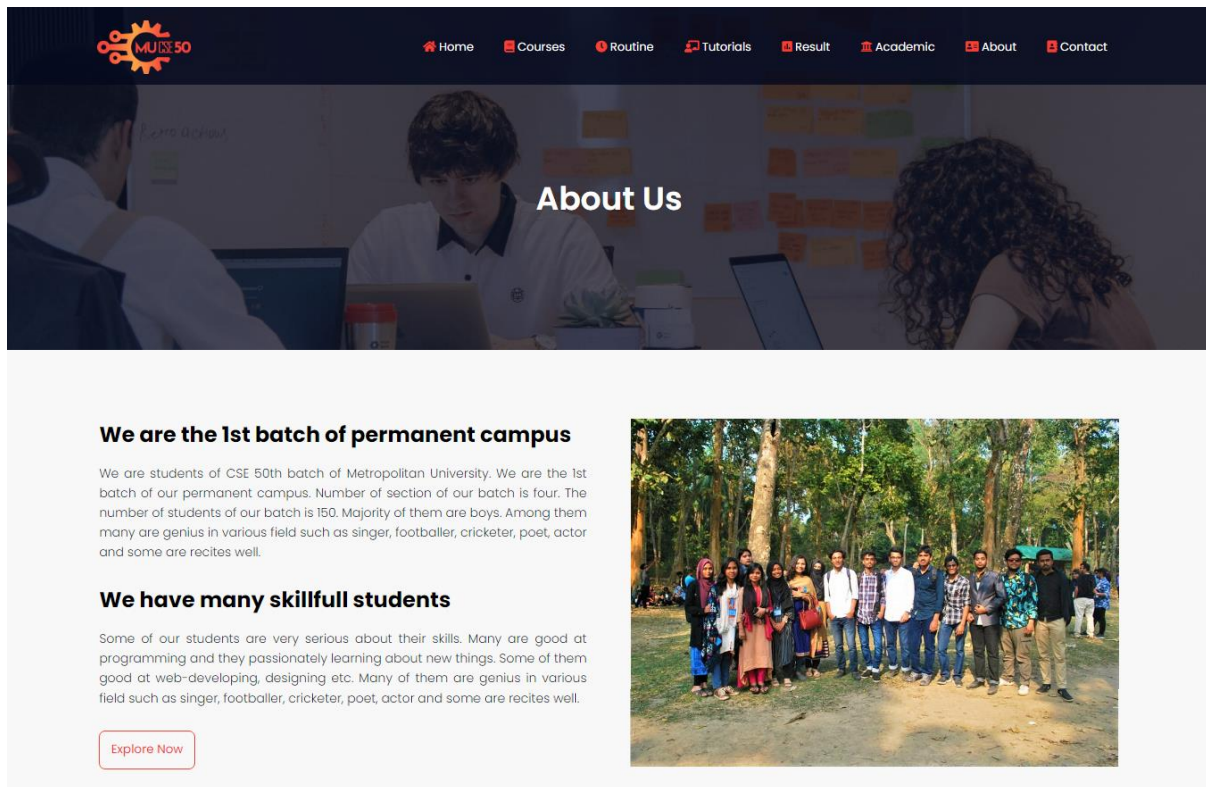


Image-37

The 'About us' page contains some text about the CSE-50 batch of Metropolitan University and a group photo. 'Image-37' shows the desktop view of this page.

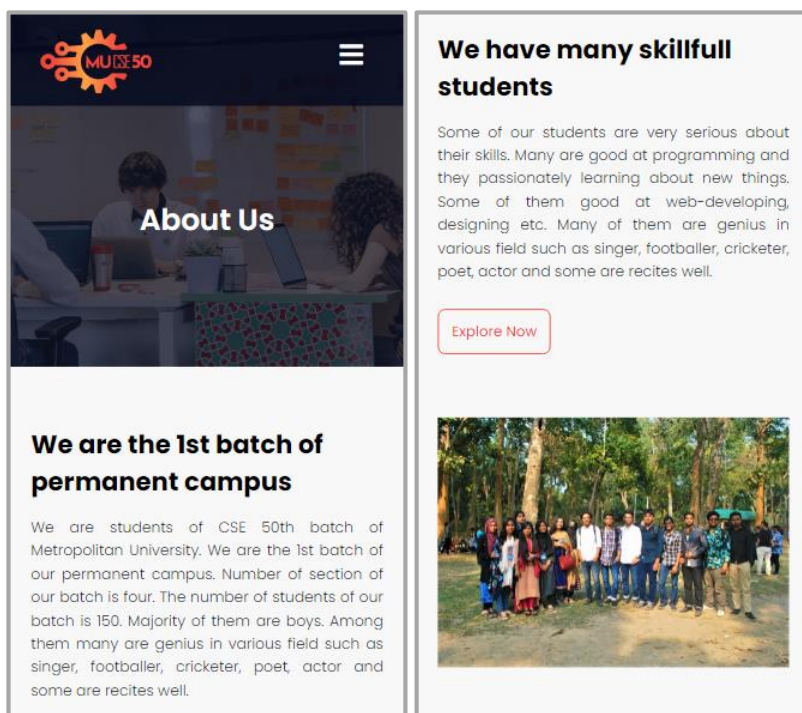


Image-38

This pages are also responsive for small screen devices. 'Image-38' shows how this page looks after opening on mobile. Here are two consecutive screenshots from the left representing the view of the mobile.

3.9 Contact

On the contact page, we first added the location of the Metropolitan University through Google Maps. Then we divided the part into two parts. In the first part we gave contact information and in the next part we gave a form to contact us. Users will be able to send us a message by filling out and submitting the form. [Page 11: 3.2] shows how this form works or takes data input. 'Image-39' shows the desktop view of this page. Here are 2 screenshots merged.

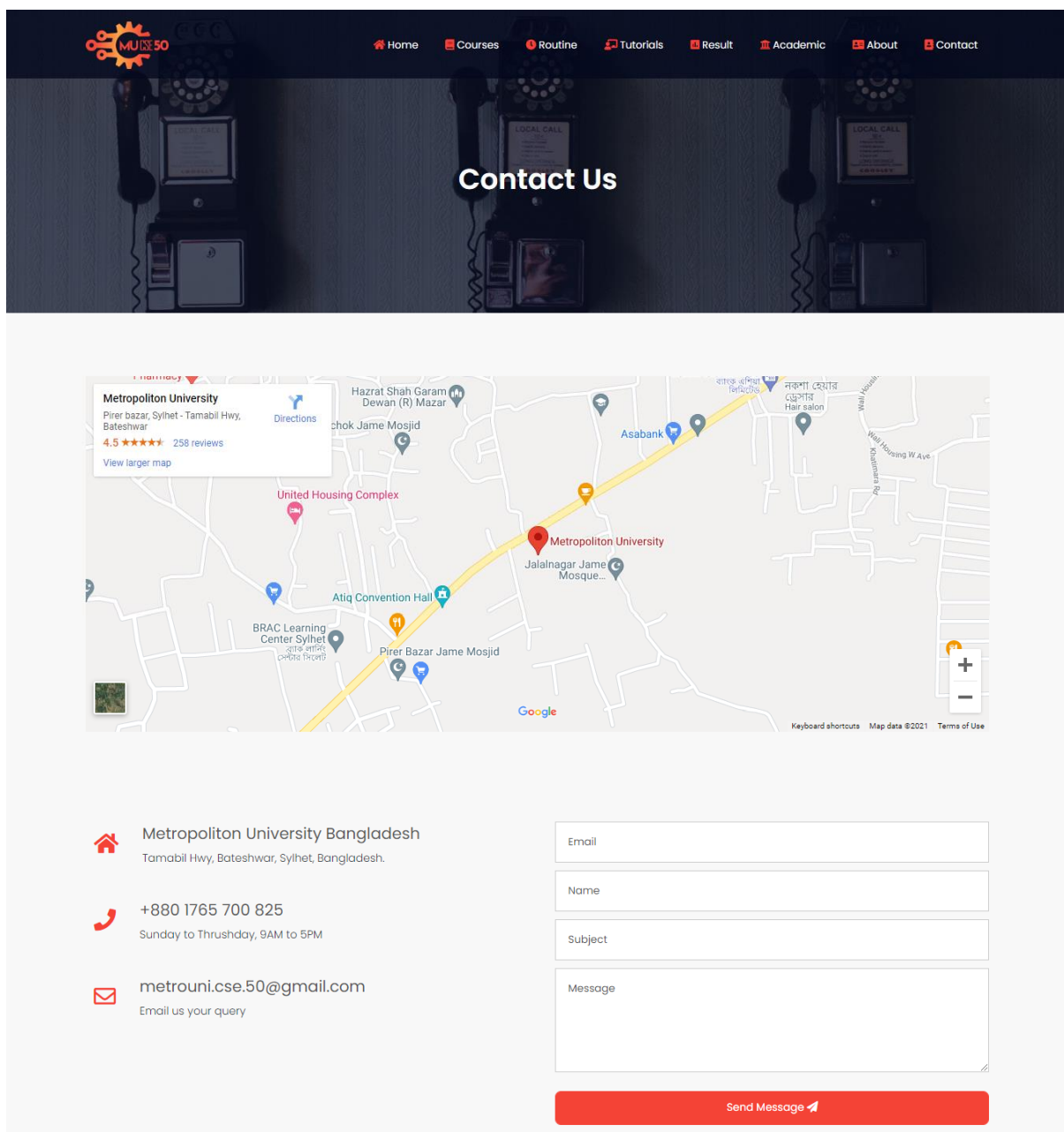


Image-39

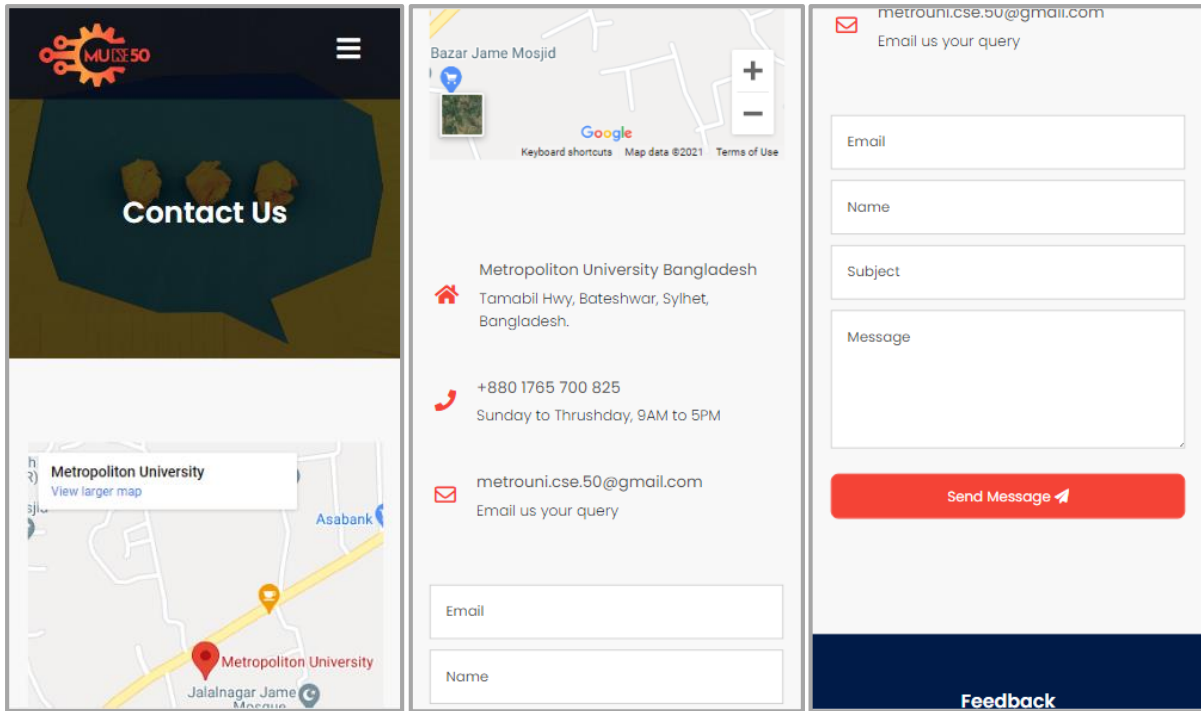


Image-40

This pages are also responsive for small screen devices. 'Image-40' shows how this page looks after opening on mobile. Here are three consecutive screenshots from the left representing the view of the mobile.

4. Conclusion

The project titled 'MU CSE 50' is a website that deals with issues related to a batch.

- ✓ This project is successfully implemented with all the features mentioned in the specification.
- ✓ The website provides appropriate information to the users according to the selected service.
- ✓ The project is designed keeping in mind the daily problems of a batch.
- ✓ This project will help reduce unnecessary waste of time.

5. References

Below are the references to the source or website from which the elements of the website have been collected:

- The images that are commonly used on this website are taken from 'unsplash.com'.
- The pictures used by the teachers are taken from the official website of the Metropolitan University.
- The icons used on the website are taken from 'fontawesome.com'.
- The fonts used on the website are collected from 'Google fonts'.
- The 'Owl-Carousel' slider has been used to add sliders.
- 'Google charts' are used to use charts on the homepage.
- All code is written through Visual Studio code.
- Also 'Adobe Illustrator' for logo design and 'Adobe Photoshop' for some image editing.