

# HCI

*by Kapil Pokhrel*

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## **1. Introduction**

Bright Future Web application is a system built for online learning. It will help the bright future education center to expand their business and make it more accessible to people through online mediums. The web application will help the users to choose the kind of courses they want to study. It has features like user log in, purchasing courses, reading blogs, About Us, and Contact features.

### **1.1 Objective**

The main objective of this web application is to develop a user interactive online learning system. Other objectives are:

- To enable understudies to have access to all learning resources at any time and from any location.
- To enable the Bright Future organization to access student data and track academic progress.

### **1.2 Problem statement**

Due to the spread of the Covid-19 Virus, Krypton Education is unable to conduct physical lessons for its pupils. Learners are often unable to obtain appropriate study tools and notes from their teachers. Furthermore, because many of the students are in rural places, they are having difficulty joining the live sessions presented on Microsoft Teams. Because students are in rural places, they do not have adequate <sup>1</sup> resources to hold practical sessions and practice for their practical disciplines.

### **1.3 Proposes solution**

We intend to replace the present Student the executive's structure with a Student's Web area. This Web site will enable teachers to transfer recordings of courses as well as address notes, pdfs, and slides, allowing students to access those assets whenever and from wherever they are in the world.

## **2. User Requirements**

Bright Future web application was created by considering human-computer interaction factors. The web application is related to education-related stuff and is developed for an educational center based in Pokhara city of Nepal. The first phase for development consists of data gathering and analysis, user profiling, and stakeholder analysis along with task analysis to validate the data collected. All of these phases will help us to build a proper web application for the education center.

### **2.1 User Profiling**

User profiling is a collection of information related to the users. It helps one to determine the kind of users, their age, gender, and other relevant details about the user. The users may be novice, intermediate, or experts. It also includes the objective of using the system and tasks performed in the system. The aim of carrying out this process in the early stage is to find out about the user requirements that can be helpful to make the system more interactive, efficient, and user-friendly. It helps us to meet the user's needs.

#### **2.1.1 Find out the users:**

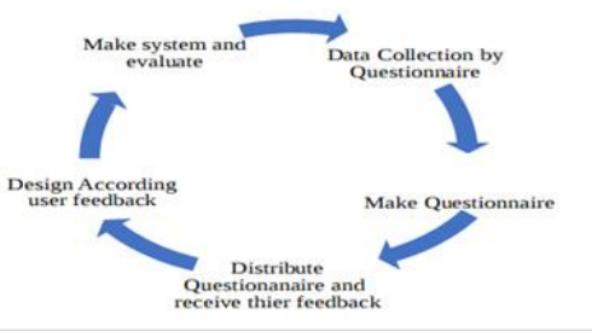
students, teachers, office goers, and all kinds of people interested in online learning

#### **2.1.2 Impact of user profiling:**

- It helps us to generate new ideas
- Helps to keep the web application in a systematic manner
- Helps to find out users' attributes and many more

#### **2.1.3 Profiling process**

We have taken out the process shown below to collect users' data and identify their interest in online learning web applications. It is a process to collect data from users which will help us in successful design implementation for task analysis.



## 2.2 Stakeholder Analysis

Stakeholders are those people who are directly or indirectly associated with the system and stakeholder analysis is the process of identifying these people before starting the development of the bright future web application. It can help us to group the users according to their level of interest and participation. There are several kinds of stakeholder analysis techniques that can help us identify, prioritize and understand the stakeholders. For identifying our stakeholders in the bright future, we have used the power interest grid technique to determine the stakeholders based on their power or influence and interest in our project.

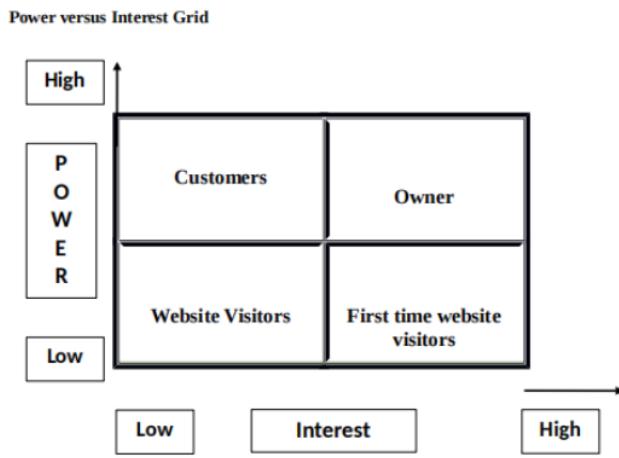


Figure 2: Power versus Interest Grid Stakeholder analysis

### Types of Stakeholders determined:

Categories Of User	Users	Justification
Primary	Students, Office Goers,	Primary users are the

	and other kinds of people interested in learning	individuals who are directly affected by the actions of the organization. They are the people who use the facility provided by the system on daily basis.
<b>Secondary</b>	Administrator, working staff	Secondary users are the individuals who are indirectly affected by the actions of the bright future education center. They are responsible for increasing the productivity of the project.
<b>Tertiary</b>	Owner, Competitors of the project	Tertiary users are the individuals who are less affected than secondary stakeholders. These are the group of people whose opinions and perceptions can greatly affect the system

## 2.3 Data Gathering and Analysis

### 2.3.1 Data gathering

Data gathering is the process of collecting data and evaluating it. Data gathering is divided into two types: There are primary and secondary methods of data gathering.

#### **Secondary data gathering methods**

Secondary data include books, journals, online portals and are accessible using the internet. This is the easiest method of data gathering as it can be done anytime, anywhere with the internet available.

#### **Primary data gathering methods**

Primary data gathering methods are divided into two groups: Qualitative and Quantitative. Qualitative data gathering includes the data which are more relevant and effective but take more time to gather. The interview can be categorized into qualitative data gathering. Quantitative data gathering includes collecting a larger amount of data in a short period. The questionnaire can be categorized into quantitative data gathering.

### **2.3.2 Selection of data gathering method**

The free-format Questionnaire is selected as the data-gathering technique for our bright future web application as it helps us to collect a large amount of data in a small period. The method is cost-effective and can be easily made and distributed online using google forms We have not used a fixed format questionnaire as it limits the respondent's answers, and the respondents may not find the answer he/she wants to answer.

A web application is accessible to every person who has a device and internet, and our education portal has a large number of students and other users of all age groups. So, the questionnaire is chosen as the data-gathering technique for our bight future web application.

Below is a Set of sample surveys used for data gathering:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Age: \_\_\_\_\_

1. Please mention your education qualification?
2. Have you ever used any computing devices like mobile, laptop, desktop computer?
3. Have you ever visited any Education center website?
4. If yes which types of weakness did you find in the website ?
5. Which types of content will be beneficial for education portal website in context for your type of users?
6. Which types of functionality do you expect from a education portal website?
7. Which types of problem did you face after you visited a education portal website?
8. Did you find anything that will be best to add contents in education portal website?
9. What do you think about educational center website and have any problem in scrolling top to down and down to top?
10. Have you face any problems to contact owner of the educational center through the website?
11. Which colors do you prefer in educational center website?

### 2.3.3 Activities

After finalizing the free format Questionnaire to use for bright future web applications. We decided to conduct an online session for data gathering.

Detail	
Date and Time	February 1,2022 from 10AM-1PM
Audience	All Kinds of People interested in Online learning

### 2.3.4 Questionnaire Analysis

From the above survey carried out, we got some valuable feedback on the education web applications. From the above questionnaire survey answers, we came up with some ideas on how we can create our web application that will be more efficient, reliable, and usable.

Characteristics	Able to visit an online education website
Question	<b>1. Please mention your education qualification ?</b>
Result	Most of the visitor are educated and some are intermediate
Impact on Design	We will design the website with a simple interactive interface.

Characteristics	Able to use electronic devices
Question	<b>2. Have you ever used any computing devices like mobile, laptop,desktop computer ?</b>
Result	Most of them use different kind of computing devices
Impact on Design	We will make the website responsive so that all kinds of computing devices can see the website according to their interface

Characteristics	Know how many users visited online Education portals website
Question	<b>3. Have you ever visited an Education center website ?</b>
Result	Most of the users already visited education portals like khan academy, w3 schools etc.
Impact on Design	We will focus on getting as many users into the website so we will add contact details and feedback form

Characteristics	Find out where the user feels uncomfortable while using a education portal website
Question	<b>4. If yes what kind of weaknesses did you find in the website ?</b>
Result	Most of them answered that the website are confusing and not much informative
Impact on Design	We will be going for a simple design and consider the visibility of information we put into the website

Characteristics	Able to find out what kinds of contents can we put into the website to make it more usable and useful.
Question	<b>5. Which types of content will be beneficial for education portal website in context for your type of users?</b>
Result	Most of them told that it must have one consultation service along with different sections for learning
Impact on Design	In homepage, we will design information on available services differentiated into different section

Characteristics	Able to find out what users want to add into the website
Question	<b>6. Which types of functionality do you expect from a education portal website?</b>
Result	Most of them replied that it was difficult to navigate the website location
Impact on Design	We will add a map pinpointing the exact location of our bright future consultancy

Characteristics	Able to find out if drop out is necessary for the website
Question	<b>9. What do you think about educational center website and have any problem in scrolling top to down and down to top?</b>
Result	Most of them reported finding problem in scrolling
Impact on Design	We will add a dropout functionality into our website so it will be easy for users to scroll

Characteristics	Able to find out if users have any problem to contact the officials of the website and consultancy
Question	<b>10. Have you face any problems to contact owner of the educational center through the website?</b>
Result	Most of the reported having navigation problems and asked phone numbers to help them to easily contact
Impact on Design	In the contact section, we will add the phone number of the reception of bright future

Characteristics	Able to find out best colors for the website
Question	11. Which colors do you prefer in educational center website?
Result	Most of the responded on preferring white and other colors which are eye catching
Impact on Design	We will choose simple eye catching colors in the homepage design

## 2.4 User Profile

Characteristics of User	
Description	Users who have a bank account
Age	18 and above
User Type 1	Intermediate along with expert users
Gender	Male and female both
Country	Specifically for Nepal
Experience	Should know how to use web applications

## 2.5 Task Analysis

Task inquiry is the act of learning about clients by seeing them in real life to understand how they complete their tasks and reach their desired goals. Task analysis aids in identifying the tasks that our program should support, as well as in refining and describing the site's or search's material scope. The primary purpose of doing research is to identify objectives, and the secondary goal is to create tasks that help to accomplish the ease of use objectives.

### Purpose of Task Analysis:

The purpose of this task analysis for a bright future is to:

- To find out the objective of the users(what they are trying to achieve)
- To find out what workflow will the users carry out to complete their task

### Why task Analysis:

We are carrying out this task Analysis for a bright future to:

- Define the requirements to the design
- Develop evaluation plans
- Identify problems with the design

The hierarchical task analysis technique is chosen as the analysis method for our bright future web application development:

### 2.5.1 Hierarchical Task Analysis

We are going to choose hierarchical task analysis as a graphical representation for our web application development. In hierarchical task analysis, we break down the task into a hierarchical order of goals, operations(actions), and plans. Now, let us divide the tasks of a Bright future web application to understand it more easily. The web application has a home page, courses page, contact page, login page, sign up page, and about us page. Each page has its different functionality and information that will make a user able to easily understand the types of services provided in the web application.

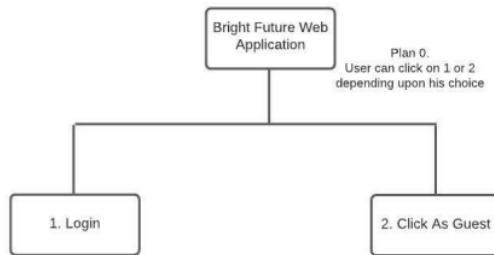


Fig: User Entry Point into the system

	Critically	Difficulty	Frequently
Login	H	L	M/L
Click As Guest	H	L	L

If the user clicks into login he/she will be redirected to a different page and click as a guest will redirect him/her to the landing page directly but with limited features like he/she cant buy a course he/she needs without registering

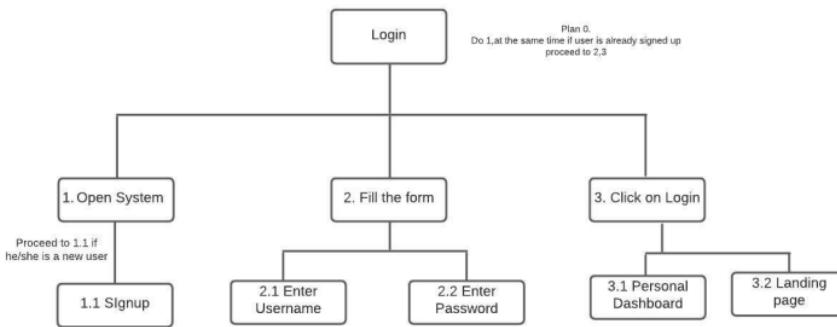


Fig: Login HTA

	Critically	Difficulty	Frequently
Open System	H	L	M/L
Fill Form	H	L	M/L
Click On Login	H	L	M/L

If the user wants to log into the system. He/she must first open the system. If he/she is a new user, he or she must register. Otherwise fill-up the form and click on the login to enter.

The landing page is a single home page that will have all the sections inside this single page. The user can locate the following sections using the navigation bar on the top.

The landing page will have the following sections: Courses, blog, Contact Us, About Us, Contributor (If he/she wants to apply as a teacher)

Users can open the following pages according to /her needs,

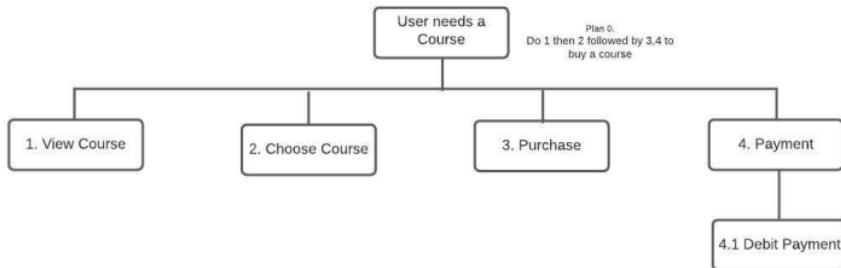


Fig: Courses HTA

	Critically 1	Difficulty	Frequently
View Course	H	L	H
Choose Course	H	L	H
Purchase	H	L	H
Payment	H	L	H

If the user needs a course, he/she must first click on the course section where he/she can view the course. After that, the user can choose the course he/she wants and click on the purchase. To make a purchase, he/she must make a payment using the debit.

### **Impact of HTA**

From the above hierarchical task analysis, we can see the approach to solving a task that our web application will have. It helps us to determine the kind of approach a user will take to reach his/her goal. The above table helped us to determine the criticality, difficulty, and usage frequency of the tasks, and here are some of the impacts of the above task analysis:

- The courses section has a high frequency. I.e: It means that we should keep the section more visible in our web application. Along with that, the following has low difficulty and high criticality(importance)
- The login section has a middle and high frequency which means it will be often used by the user. It has high criticality as a user can purchase or enroll in a course without logging in, so it too should be made more visible.

## **3. Usability goals, guidelines, and Competitive Analysis**

### **3.1 Introduction**

The nature of a client's insight when communicating with the framework or an item to achieve defined objectives with adequacy, productivity, and fulfillment is referred to as usability (Nielsen,2012). The term "ease of use" refers to a strategy for improving convenience throughout the plan interaction. Convenience determines the rate of achievement or disappointment. Lower productivity and increase in time, cost, and effort are the result of poor usability. In our system, we used some methods which increase the usability so that any type of user can complete their desired tasks by

shortening the learning time, with good efficiency, a low number of errors, and an increase in satisfaction.

### **3.2 Selection of usability goals**

While developing the framework, we focused on a variety of factors, one of which was convenience. As previously said, there are three types of clients: novice clients, learned irregular clients, and master continuous clients. The framework's character is determined by the client's degree of capability, which is noted below:

#### **a. Learnability**

Learnability means the capability of a product or software to enable the user to become familiar and make full use of their all features within a short period.

Learnability can be measured with the help of novice users of a system by measuring the duration they are required to complete a task. Our system is designed in such a way that novice users can learn to perform different tasks and processes involved to complete certain tasks. The goal of our system is to ensure that it is easy to use and takes little time to perform core tasks.

#### **b. Efficiency**

According to (ISO Standard,9241) efficiency is defined as the resources used by the user for the accuracy and completeness to achieve a goal. High efficiency is achieved when a user can achieve his/her goal with the use of a few resources as possible. It refers to how a system assists users in completing their tasks. The goal of our system is that once a user learned to use the system then he/she will be able to take benefits from the services which our system will provide.

#### **c. Memorability**

Memorability refers to how easy it is for a user to remember the system. It is also known for the ability to recall the learning of a system. The goal of our system is to make the system be able to recall or be reminded of how to perform a specific operation even if a user gets back to the system after a long while.

#### **d. Error**

This quality helps the user to be away from being in an undesirable condition while performing a specific task. An error can be measured by counting minor and catastrophic errors made by users while performing specific tasks. The

goal of our system is to help a user in avoiding any type of unintentional action while performing tasks.

**e. Satisfaction**

Satisfaction means how pleasant is the system to use. This quality can be measured from the user's subjective opinions (questionnaires, interviews) after using the system for a real-world task. The goal of our system is to provide the most enjoyable experience to the user while using the system.

### **3.3 Selection of Design principles**

**a. C0nsistency**

Making connections with equivalent activities and components for comparable assignments is referred to as consistency. The goal of implementing this plan standard is to keep the point of engagement consistent so that it is easy to understand and use. This design principle supports satisfaction. In our system, we will apply consistency using the same font and color on every page of our system. Similarly, the position of the logo of our company will be consistent on all pages. This will help the user to understand the similar page continuity with fewer surprises.

**b. Mapping**

Mapping is the relationship between control and its effects. It is about establishing a clear relationship between controls and their impact. In our system, we design the controls in such a way that they reflect how they behave or the result obtained after using them. Mapping is also one of the important design principles which we kept in our mind during designing our system. We will use the down arrow in the navigation bar which means down from the perspective of the real-life meaning. The user will simply click the arrow which will display the sub-menu in a downward direction. Similarly, in the registration form, we used the design principle mapping by arranging the first name before the last name as the first name comes before the last name in the scenario of the real world.

**c. Constraint**

Constraint refers to the method of limiting the user's action that may occur at any particular time. Using constraint, we can avoid the mistakes that the user can do while using the system. In our system, we will use the constraint by restricting the user to register, log in, and submit their query without filling all

the inputs available. For this, we will use the “required” word to reflect the restriction.

**d. Affordance**

Affordance refers to a feature of an object which enables people to understand how to use it. If an object has strong affordance, then the users can easily describe its uses by observing its physical appearance. In our system, we use the icons which have a real-world reference so that even the novice user can use the system by observing the icons only. By this, the learnability will be easier, and memorability will be strong. Similarly, affordance will be applied in buttons and fields. Users know what to do with buttons and the space in fields represents that it is for entering text. We will use icons in the service section so that a user can easily define what are the services which Bright future provides. Similarly, the shape of the button and the color which will be used in it represent it differently and any level of user can have an idea that it is a button, and it is placed for the clicking purpose.

**e. feedback**

Input refers to transmitting data on what move was performed and what was accomplished, allowing the client to proceed with their activity with little to no error. Criticism can be expressed by a word, music, material, or visual means. The goal of this design principle is to reduce error and guide the user if they have done anything wrong while performing their tasks. In our system, we implemented Feedback that comes under the design principle to deliver the message that the users have done. If the user is doing any error while using the system error message will be shown which helps the user to continue their task to achieve a certain goal without any difficulties. We will provide feedback in every form and the notification bar so that after placing an order the notification will display. This will let a user know that his/her order has been successfully placed which will reduce the chances of error while using our system.

**f. Visibility**

Visibility refers to making the primary capabilities inside the framework visible enough so that the client can see, discover, assign, and manage them. This design principle helps to increase satisfaction, learnability, and memorability. While designing the system we kept in our mind that we can't

make everything visible. The visibility should be according to the priority. In our system, we will implement the design principle of visibility on every page along with the navigation bar. At the top left of every page, we will add a logo by which users will easily know that they visited the appropriate website. Similarly, the background and text colors will be added in such a way that looks attractive, increases the user's attention, catches the reader's eyes, and is easily seen by the users without any difficulties with the increase in satisfaction of the user. Only the most important functions will be arranged in the main menu bars and other functions will be arranged in either sub-menus or footer so that the user can easily learn and memorize the system.

### 3.4 Competitive Analysis

Competitor analysis is the process of studying competitors through gathering insights and their business and market strategies. The objective of a competitive analysis is to comprehend what should be done correctly and what to be avoided to build a system that is easy to use and user interface that the user love using. There are a variety of reasons that motivate to conduct competitor analysis. Competitor analysis aids in the resolution of usability issues, design process, and focus on the effort in the targeted market. Competitor analysis also helps to know the actual strength and weaknesses of the competitors and identify the market gaps.

The steps involved in the competitive analysis is shown below in the figure:

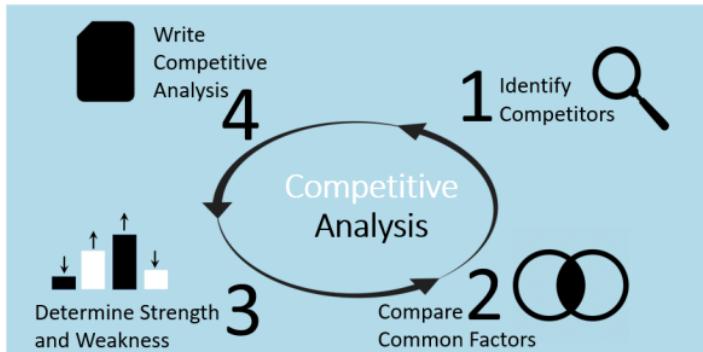


Fig: Steps involved in Competitive analysis

### Comparison table of Competitive Analysis

<b>Criteria</b>	<b>Bright Future</b>	<b>MPX Interactive</b>	<b>EDX</b>
<b>Visibility</b>	Good visibility due to the perfect use of text and background color and important features in the main menu bar.	Good visibility due to important features arranged in the navigation bar.	Good visibility due to the text and background color.
<b>Constraints</b>	All the details must be provided in every form to perform the further tasks.	Similarly, the restriction is available if any input field is empty.	Lack of constraints due to the absence of restriction in the contact form for the message field.
<b>Feedback</b>	Proper feedback is provided after every operation which is done successfully, or any errors occurred.	Feedback is provided only in the login and registration form.	Lack of feedback in the contact form by which the user can send an empty message.
<b>Consistency</b>	All the text sizes, colors, and positions of every element are consistent on every page.	Inconsistent due to a mess of information on the course page while providing the details of a particular course	Consistent due to the proper size and arrangement of the elements on every page.
<b>Mapping</b>	Good mapping due to the proper use of the down arrow to display the sub-	Mapping is used only in a few pages.	The use of mapping doesn't find properly.

	menus and labels are arranged based on real-word scenarios i.e., first name before the last name in the registration form.		
<b>Affordance</b>	Use of real-world scenario-based icons to define the purpose to the user by observing the icons only.	No use of any icons.	The use of icons is rarely found with no meanings.

Table1: Comparison of competitors

### 3.5 Analysis

There are significant market gaps since rivals are lacking in some sectors which makes their system weak. There will be a good opportunity if they focus where they are lacking behind. The use of icons should be clear so that novice users can use the services by observing the icons. Feedback should be properly given in every form to avoid errors and notify the user of what has been done. Design elements will be introduced based on good experience and increase user satisfaction. Similarly, site safety and enjoyment due to a simple user interface is a new commercial potential that our system should create in the user's mind.

## 4. Design and Walkthrough

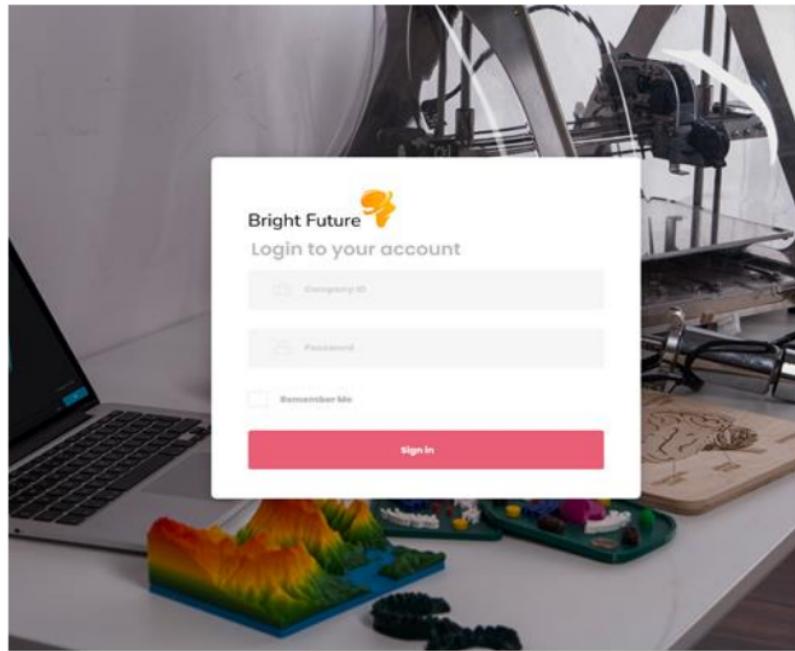
### 4.1 Parallel Design

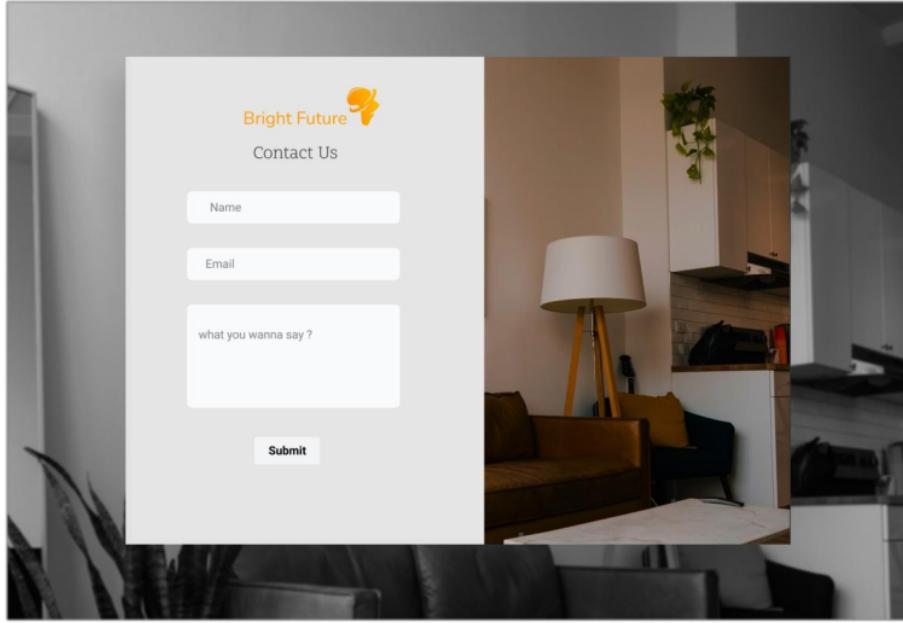
The parallel design approach enables individuals to begin designing with a comparable set of needs. Design concepts can be shared in groups after designers have worked individually on their designs to completion. Furthermore, after discussing each concept in the group, the entire team decides on the best design or idea to move forward with. The objective for applying parallel design is to obtain the ideal notion for designing their prototype. The parallel design approach aids in

addressing the layout, determining the expertise of your teams, determining the criteria for assessment, and understanding the design fidelity expectation.

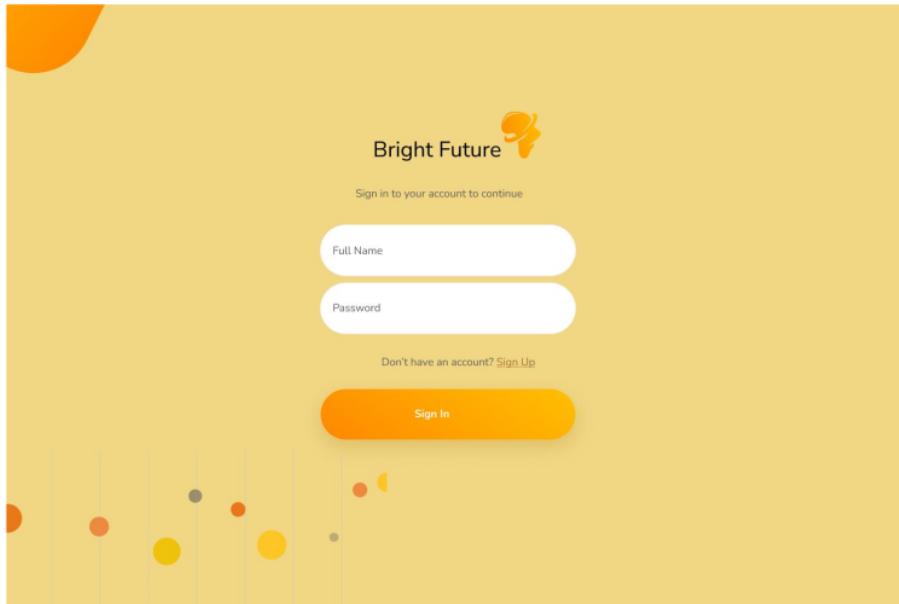
The designs below were created independently by our four-member group to be used as a basis for building a prototype of the Login Page and Contact Us.

**Login and Contact form Designed by Bikash Baral**



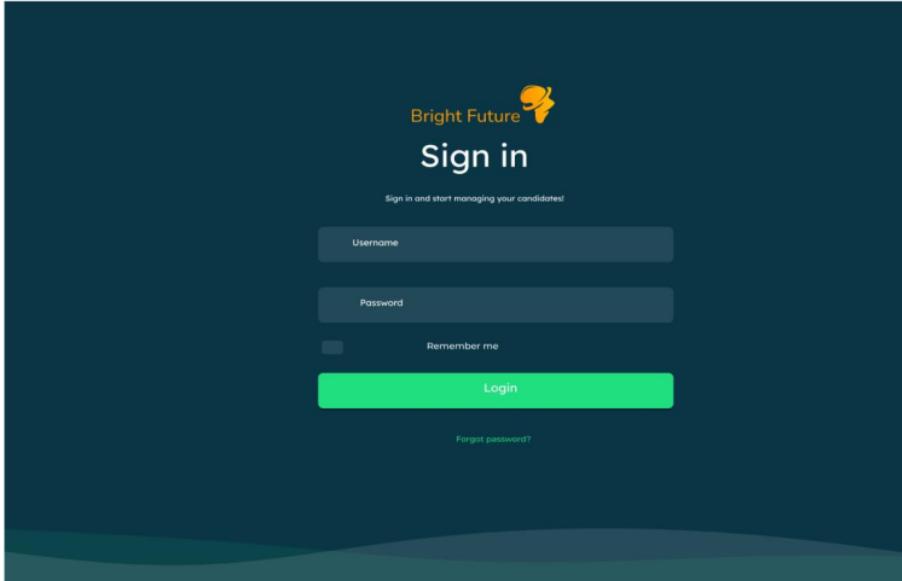


## Login Page and Contact Form Design by Shivam Ranabhat



The contact form is set against a light purple background. It contains a white rectangular form with rounded corners. The "Bright Future" logo is at the top. Below it is the heading "Send Us a Message". The form includes fields for "Full name" (with a horizontal line), "Your email" (with a horizontal line), and a dropdown menu labeled "I want to post". At the bottom is a text area with placeholder text "Your message goes here..." and a dark blue "Submit form" button.

## Login and Contact Form Design by Saroj Kandel



### Let's Talk!

We do not normally get back within 48hrs. Please leave a message.

Full Name:

Country / Region:

Street Address:

City:

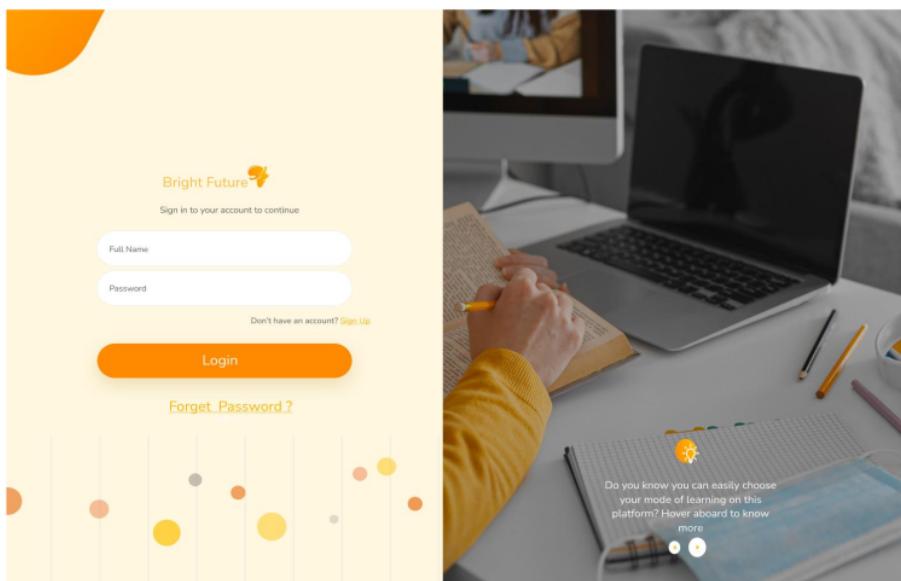
Your Message:

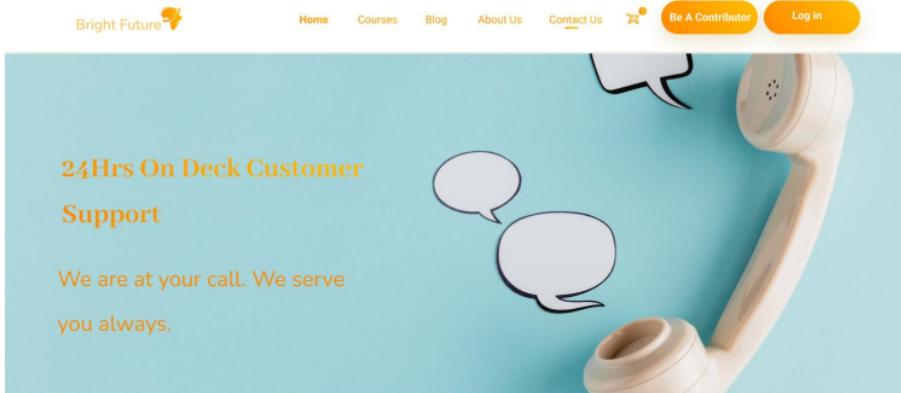
**Send Message**

**The above sketch's design principles are as follows:**

1. Visibility: The bold subject makes it easier to detect the elements, and the shape, line, box, and needed pattern are all organized according to the repeated component, making it simple for the user to view and operate the system.
2. Affordability: The placeholders inside the box are written in plain language that the user can comprehend. The user can input and amend his or her information. Furthermore, the return and sign-out options assist users in determining if they may depart the website or delete their account from the page.
2. Feedback: white boxes in the drawing show the figure of the option, and the color changes as the user select the boxes they wish to click.

### **Login and Contact Page Design by Kapil Pokhrel**





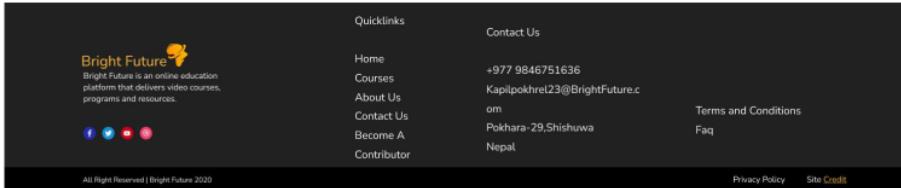
### Let's Talk!

We do noramlly get back within 48hrs. Please leave a message.





**Send Message**



### 4.2 Peer-to-Peer Assessment

After reviewing and evaluating each of the designs submitted by our gathering folks, we consistently picked Kapil Pokhrel's fourth idea as the final Sign in Page plan. We chose it as the sign-in page since it is visually appealing and has superior planning skills than other layouts. This plan meets all plan techniques, including permeability,

affordances, memorability, and planning. In addition, the mistiness level for the foundation image and the actual card provides the design a pleasing aspect.

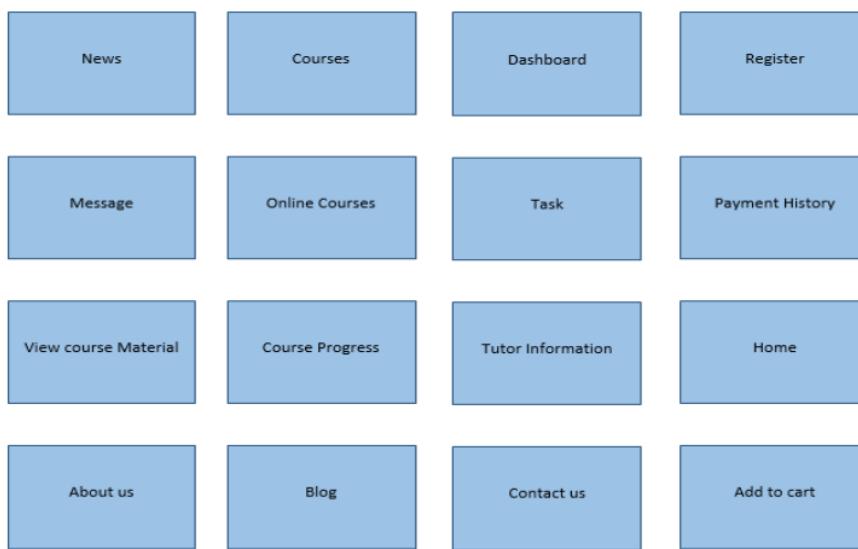
### 4.3 Participatory Design

Each creator must make their plan simple, pleasant, and intelligent for clients to employ. In any event, it is unlikely to be relevant to establish that a standard was not followed by companies, engineers, or the inventor and fashioner in some way when it comes to planning execution. Participant setup is used to overcome these concerns in this case. This strategy aids in the creation of a decentralized framework through the use of partner and end-client references, which helps to ensure that the reason configuration is consistent. The development of a route framework should be organized, and this is an important task that should be completed by a planner or designer using a participative plan.

#### 4.3.1 Card Sorting

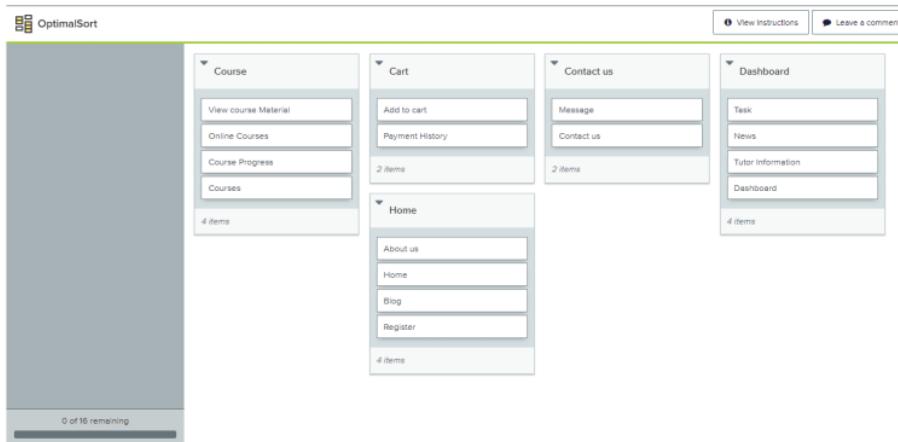
When it comes to the design, it's tough to separate similar elements. As a result, the card sorting approach is employed to solve these challenges. Furthermore, this design collects all of the associated menus supplied by participants and organizes and categorizes them according to usability and appropriate pattern. We can locate a connected topic for "Bright Future" consumers using the card sorting approach, and they may play a significant part in obtaining their experiences and successful design.

#### 4.3.2 Card Listing



## Card Sorting by Categories

Users can utilize the above close card sorting list and card lists to create a decentralized system. The card sorting with the aid of end-users and stakeholders is shown in the following screenshots:



#### **4.4 Prototype**

Our application's connecting point is created using the "Figma" UX tool. This tool provides a variety of plan-related aspects, making it simple to create and share plans.

The displays below are from our whole "Bright Future" Web application, including some mechanism underlying each screen:

The screenshot shows the homepage of Bright Future, an online education platform. At the top, there's a navigation bar with links for Home, Courses, Blog, About Us, Contact Us, Be A Contributor, Log in, and a shopping cart icon. The main banner features a dark background with a person using a laptop, overlaid with text: "Get Access to Unlimited Educational Resources Everywhere, Everytime!" and "Premium access to more than 10,000 resources ranging from courses, events e.t.c.". Below the banner are three yellow circular icons with text: "Unlimited Access" (One subscription unlimited access), "Expert Teachers" (Learn from industry experts who are passionate about teaching), and "Learn Anywhere" (Switch between your computer, tablet, or mobile device). To the left of the main content area is a large circular inset image showing a person writing in a notebook while looking at a laptop screen. To the right of the inset, there's a section titled "Learn A Skill. Build Your Portfolio. Get Hired!" with a "Discover" button. The bottom of the page has a footer with "Quicklinks" for Home, Courses, About Us, Contact Us, Become A Contributor, and "Contact Us" with contact information: +977 9846751636, Kapilpokhrel23@BrightFuture.com, Pokhara-29, Shishuwa, Nepal. It also includes links for Terms and Conditions, Faq, Privacy Policy, and Site Credits.

Bright Future

Home Courses Blog About Us Contact Us Be A Contributor Log in

Get Access to Unlimited Educational Resources Everywhere, Everytime!

Premium access to more than 10,000 resources ranging from courses, events e.t.c.

Get Access

Unlimited Access  
One subscription unlimited access

Expert Teachers  
Learn from industry experts who are passionate about teaching

Learn Anywhere  
Switch between your computer, tablet, or mobile device.

Learn A Skill.  
Build Your Portfolio.  
Get Hired!

Discover

Bright Future is an online education platform that delivers video courses, programs and resources for individual, Advertising & Media Specialist, Online Marketing Professionals, Freelancers and anyone looking to pursue a career in digital marketing, Accounting, Web development, Programming, Multimedia and CAD design.

Quicklinks

Contact Us

Home  
Courses  
About Us  
Contact Us  
Become A Contributor

+977 9846751636  
Kapilpokhrel23@BrightFuture.com  
Pokhara-29, Shishuwa, Nepal

Terms and Conditions  
Faq  
Privacy Policy  
Site Credits

Figure: Landing Page

## **Page Description**

Our online application will be available shortly. This page will function as a static page where visitors may see subtleties. This website will be useful for prospective Bright Future students as they learn about the University, their giving workplaces, and upcoming events. The Bright Future logo may be located in the upper left corner, allowing customers to get acquainted with the name of the instructional level. In the top right corner, there are also sign in and register buttons. On the top navbar, there is a down bolt for explicit associations, which allows the client to see that there is a hidden submenu or dropdown menu.

## **Principles**

### **1. Visibility**

The emblem in the upper left corner identifies the name of our Web Application. The most significant aspects that a visitor to this website may require are displayed at the top navbar, where they may view the accessible pages or links on this website. There are enough white spaces in the design to keep it from feeling crowded.

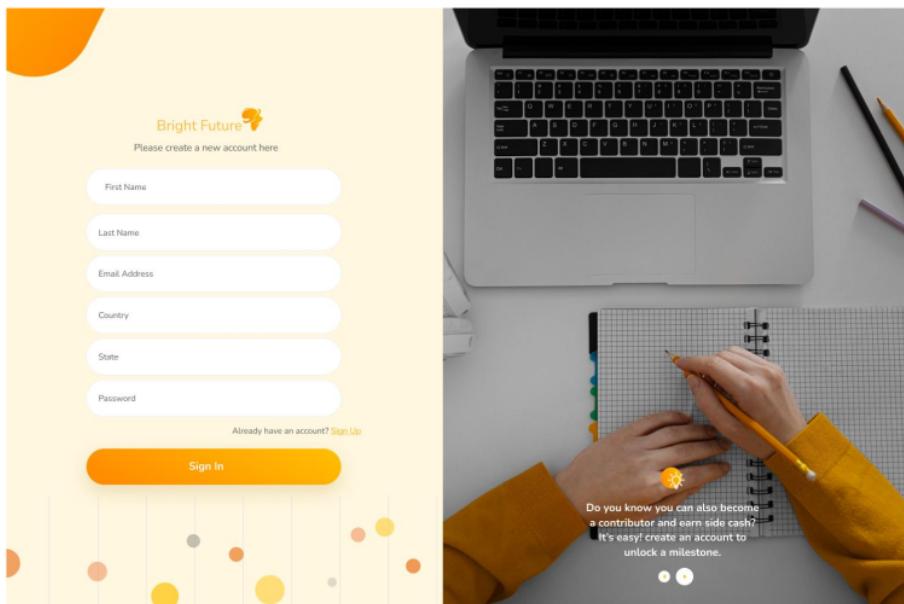
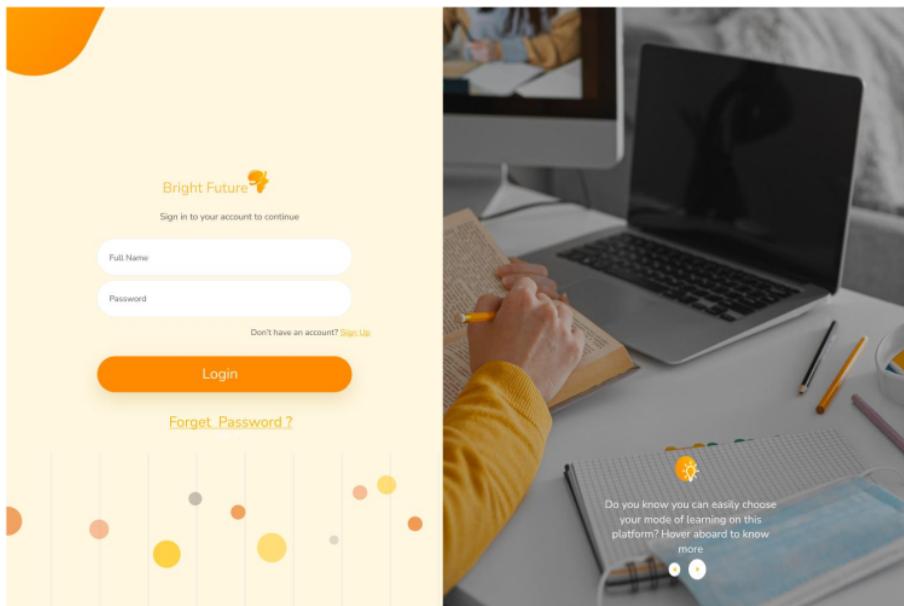
### **2. Affordance**

Those buttons in the top right corner are designed so that the user can easily understand what they do. The placeholder within the text box at the bottom of the page clearly specifies what to write there and the function of the text box.

### **3. Feedback**

On this website, many tooltips have been used to inform the user about that component.

## Login and Sign-up Page



### Description of the page

This is the Login and Signup page for the site, which appears when a customer taps on the Login Page on the Home Page. The customer should enter the login credentials supplied by Bright Future, including their email address and secret phrase, in this

section. This page features two text boxes and a Submit button at the top, as well as a logo.

**Design Principles:**

1. Affordability

The Bright Future name is announced to users via the logo at the top of the page. The supporting header behind the logo informs the user about the kind of the website to which he or she is about to connect.

2. Possibility

A placeholder within textboxes tells the user <sup>1</sup> about the role of the text box and what to type in the fields.

3. Diagramming

The text boxes and login buttons are appropriately mapped by positioning them in the Centre of the page.

4. Feedback

If any of the text fields are left blank, a validation warning appears. The validation message provides feedback to the user and advises them to ensure that all fields are correctly filled out.

## Dashboard

The screenshot shows the student dashboard of Bright Future. At the top, there's a navigation bar with links for Home, Courses, Blog, About Us, Contact Us, and a user profile icon. A prominent orange button on the right says "Be A Contributor". Below the navigation, there's a sidebar with a "Home" link and a "My Courses" section containing "Free Courses" and "Purchased Courses" tabs. The main content area displays a table of courses:

Course Details	Category	Type	Teacher	Rating	Date
4 Weeks Photography Bootcamp	Photography	Free	Bikash Baral	*****	20/12/19
Embark On The Journey Of Becoming An Artist	Creative	Premium	Sanj Kandil	*****	20/12/19
How To Have A Good Listening Ear For Music	Social	Premium	Niru Kandil	*****	20/12/19
Learn Organization Management	Management	Free	Shivam Ranabhat	*****	20/12/19

In the top right corner of the dashboard, there's a notification box titled "NOTIFICATIONS" with 12 items. It lists messages from "Kapil Pokhrel" stating "Your order is now been placed successfully." at 4 minutes ago, repeated three times.

The footer of the website includes the Bright Future logo and a brief description: "Bright Future is an online education platform that delivers video courses, programs and resources". It features social media icons for Facebook, Twitter, LinkedIn, and YouTube. The footer is divided into sections: "Quicklinks" (Home, Courses, About Us, Contact Us, Become A Contributor), "Contact Us" (phone number +977 9846751636, email Kapilpokhrel23@BrightFuture.com, address Pokhara-29, Shishuwa, Nepal), and links for "Terms and Conditions" and "Faq". At the bottom, there are links for "Privacy Policy" and "Site Credit".

## Page Description

This is the Student's Dashboard screen, which appears once an understudy sign in to the site. All of an understudy's basic information is displayed here. There is a side navigation menu from which the customer may navigate to various pages. A client profile symbol button, a warnings button, and a message button are included in the top route menu.

## **Strategy**

### **1) Visibility**

The user can tell which page they are on by looking at the logo at the top of the page and the Dashboard text in the top navigational menu. This page provides an overview of all relevant information. A side navigation menu with all of the relevant page links is included.

### **2) Accessibility**

The usage of the buttons is indicated by the top alerts and messages icons. The user may also see how many alerts or messages they haven't viewed by looking at the badges on the buttons.

### **3) Memorability**

The main navigation menu provides links to related iconography, which helps visitors remember the relationships and makes the website more memorable.

## Courses Page

The screenshot shows the 'Courses' page of the Bright Future website. At the top, there's a banner with a video of a woman teaching and the text: 'Browse Thousands of Our Video Tutorials Created Only for you.' Below the banner is a search bar with the placeholder 'Search for Courses i.e web-development'. Underneath the search bar, it says 'Showing 1-8 of 10 results' with options to 'Show 6 12 16'. There are filter and sort buttons. On the right, there's a sidebar titled 'All Courses' listing various categories like Web Development, Designs, Photography, etc., each with a count in parentheses. Below that is a 'Course Type' section with 'Free' and 'Premium' buttons. A 'Price' slider is shown with the range '\$39 - \$159'. A 'Filter' button is located below the price slider. The main content area displays a grid of 12 course thumbnails, each with a title and a 'Free' or 'Premium' badge. The courses include: 'Become A Social Media Expert', 'Advance Your 3d Modelling Skill', 'The Art Of Growing Relationship', 'Skills Needed for Becoming A Designer', 'Learn Logo Design', 'Become A Web Developer', 'Embark On The Journey Of Becoming An Artist', '4 Weeks Photography Bootcamp', 'Learn Organisation Management', '3 In 1 Course Of Becoming A Makeup Artist', 'How To Have A Good Listening Ear For Music', 'Become A Social Media Expert', 'Become A Web Developer', 'How to Focus Podcasts', and 'The Art Of Growing Relationship'. At the bottom, there are navigation buttons for '01' (highlighted in yellow), '02', '03', a minus sign, and 'Next'.

Bright Future

Home Courses About Us Contact Us Be A Contributor Log In

Browse Thousands of Our Video Tutorials Created Only for you.

Access all tutorials and resources when you become a premium member of Bright Future

Search for Courses i.e web-development

Showing 1-8 of 10 results Show 6 12 16

All Courses

- Web Development (2908)
- Designs (11293)
- Photography (2230)
- 3d Artist (9828)
- Motion Graphics (8223)
- Software Engineer (1001)
- UI/ UX RoadMap (734)
- Sound & Music (1223)
- Digital Marketing (382)

Course Type

Free Premium

Price

Price \$39 - \$159

Filter

01 02 03 - Next

**Quicklinks**

**Contact Us**

Home  
Courses  
About Us  
Contact Us  
Become A Contributor

+977 9846751636  
Kapilpkheli23@BrightFuture.c  
om  
Pokhara-29.Shishuwa  
Nepal

Terms and Conditions  
FAQ

Privacy Policy Site Credit

All Right Reserved | Bright Future 2020

## **Page Description**

The available courses are shown on this page. This page will be updated if an administrator adds new courses. Users can enroll by determining if the course is available or not.

The following is the strategy behind this design:

### **1. Visibility**

The user can see the clear structured button. The yellow hue is utilized in buttons, which are designed to familiarize the user with the application's functions.

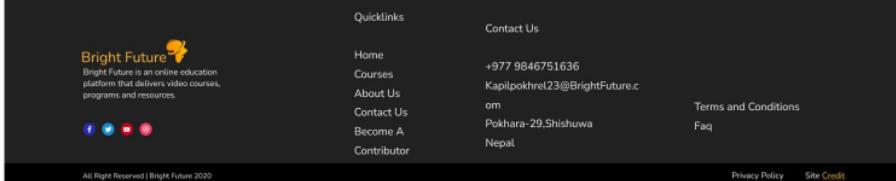
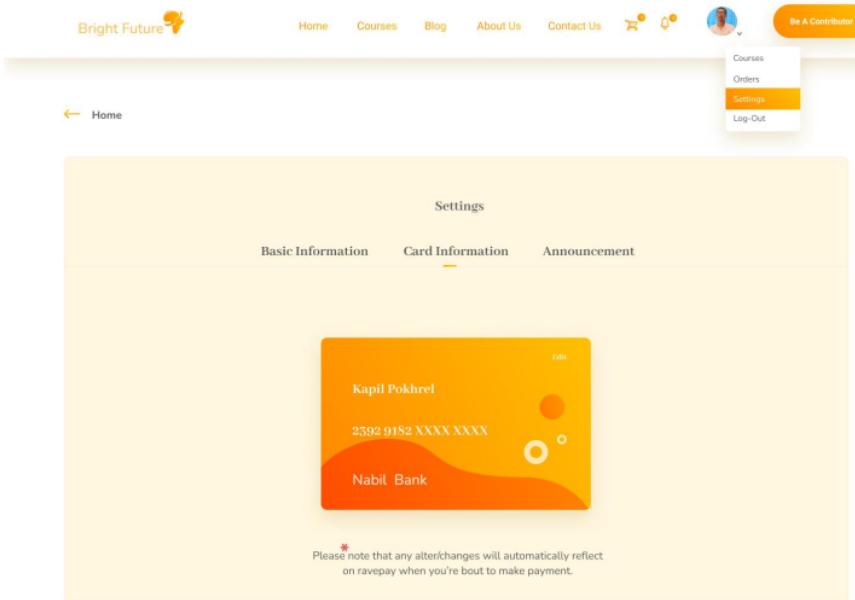
### **2. Feedback**

Some feedback pages are incorporating a notification regarding the user's action. For example, following payment, the user may receive a message of order success and the order to begin courses.

### **3. Consistency**

The header, top navigation bar, side navigation bar, and color palettes used across the website are all uniform. In terms of design, the cards are consistent with one another.

## Card Information



### Description

This is the card information page. Users can view detail about their cards and their profile after they get login and open the dashboard. User can edit their profile according to their plan.

### Strategy

#### Affordability

The user can tell where they are on the page by looking at the **logo** at the top of the page and the **Results** text in the top navigational menu. This page contains a summary of all pertinent information. It has a top navigation menu that lists all of the main page links.

### Visibility

The role of the buttons is indicated by the top icons for notifications and messages. In addition, the badges on the buttons tell the user of the number of unread alerts or messages.

### Memorability

The main navigation menu includes links with relevant iconography, which helps users grasp the connections and makes the website more memorable.

## Cart

The screenshot shows a user's shopping cart on the Bright Future website. The cart contains three items:

- Product Name & Details:** Become a guru in 3d modelling  
Instructor: Sanjay Kandel  
Modules: 11  
22/02/2019
- Quantity:** 2
- Price:** #8000/2pieces
- Delivery Details:** #2000 (selected)
- Total:** Subtotal #8000, Delivery #100, Total #8100
- Buy** button

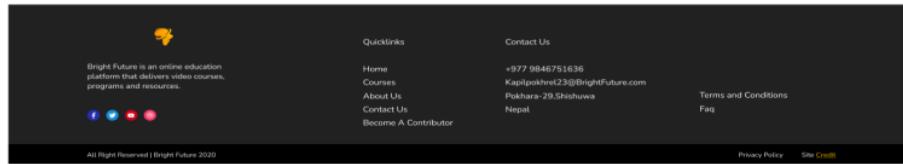
- Product Name & Details:** Web Development  
Instructor: Bhikash Baral  
Modules: 11  
22/02/2019
- Quantity:** 2
- Price:** #8000/2pieces
- Delivery Details:** #2000 (selected)
- Total:** Subtotal #8000, Delivery #100, Total #8100
- Buy** button

- Product Name & Details:** Become a artist  
Instructor: Shivam Ramabharti  
Modules: 11  
22/02/2019
- Quantity:** 2
- Price:** #8000/2pieces
- Delivery Details:** #2000 (selected)
- Total:** Subtotal #8000, Delivery #100, Total #8100
- Buy** button

**Total:** Subtotal: #24000, Delivery: #300, Total: #27000

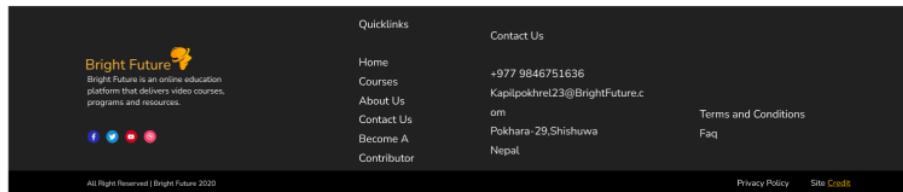
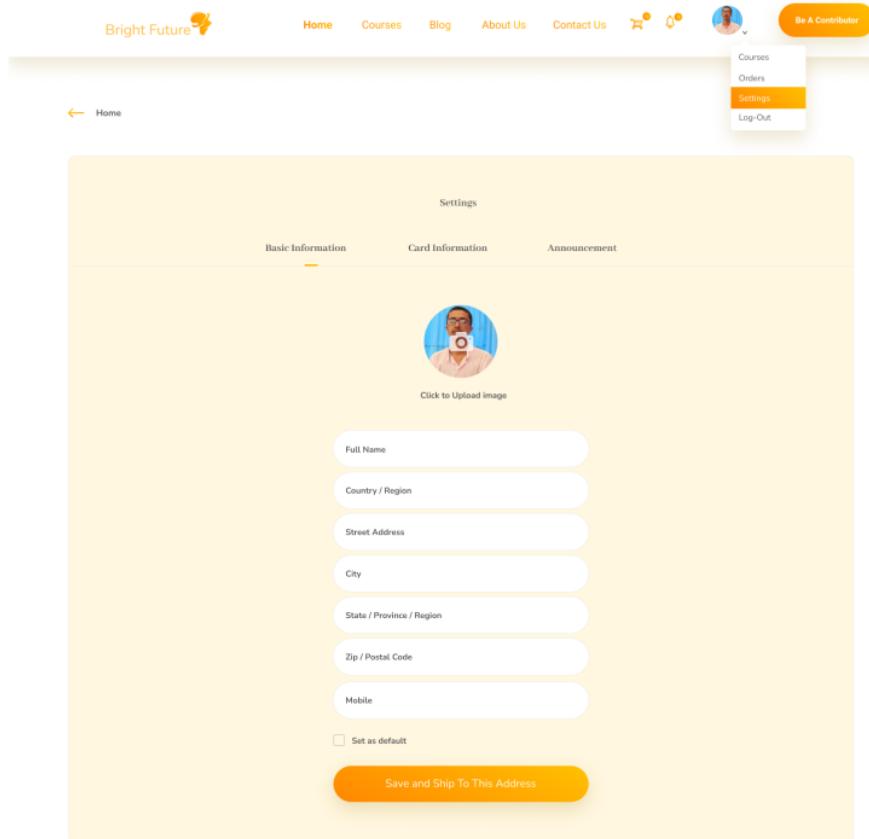
**Buy All** button



## Page Description

This is the page after the user adds courses to the cart. IN car page users can buy their courses one by one or many.

## User Setting Page



This is the client Profile page that appears when a client touches the Profile button. Each insight about the customer is displayed here. Their location, current work position, talents, and so on. They can also make changes to their profile by pressing the **Edit** buttons.

### 1. Visibility

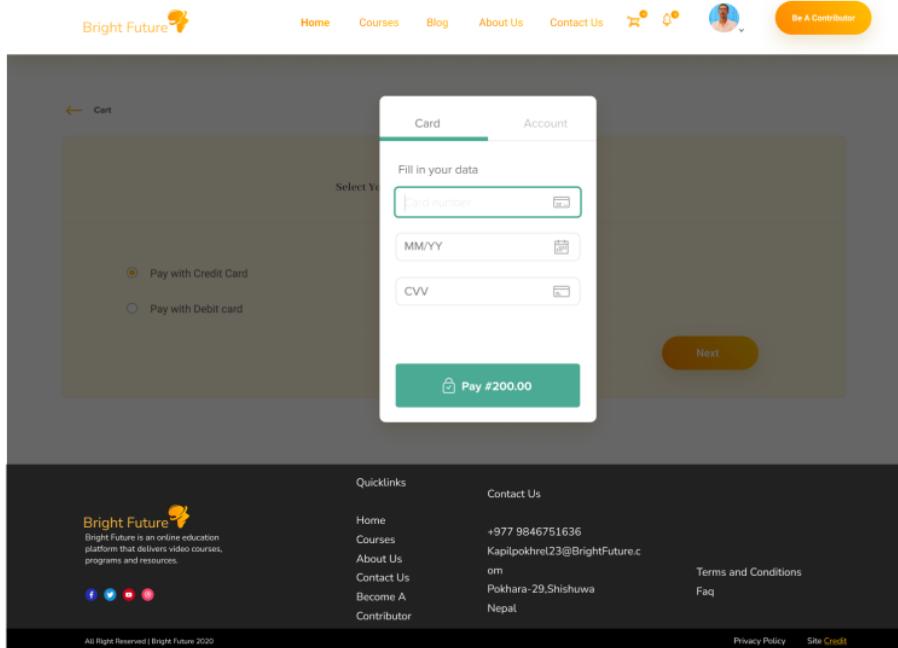
The logo at the top of the page and the Profile text in the top navigational menu indicates to the customer which page they are on. On this page, each fundamental data

point is shown as an outline. It offers a side navigation menu with all of the basic pages joins.

## 2. Affordance

The top symbols of warnings and messages identify the purpose of such buttons.

## Payment



The payment page is displayed in the above design. This page will be displayed after the user adds a course to the cart and ask for checkout. It consists of detailed information about the card.

## 1. Affordability

The logo at the top of the page and the Payment text in the top navigational menu indicate to the user which page they are on. On this page, an overview of all critical information is shown. It contains a side navigation menu with all of the necessary page connections.

## 2. Possibilities

The top alerts and messages symbols identify the use of those buttons. Furthermore, the badges on the buttons inform the user of the number of notifications or messages that have not been read.

### 3. Recall ability

The top navigational menu has links with meaningful iconography, which assists users to grasp those connections and boosts the page's memorability.

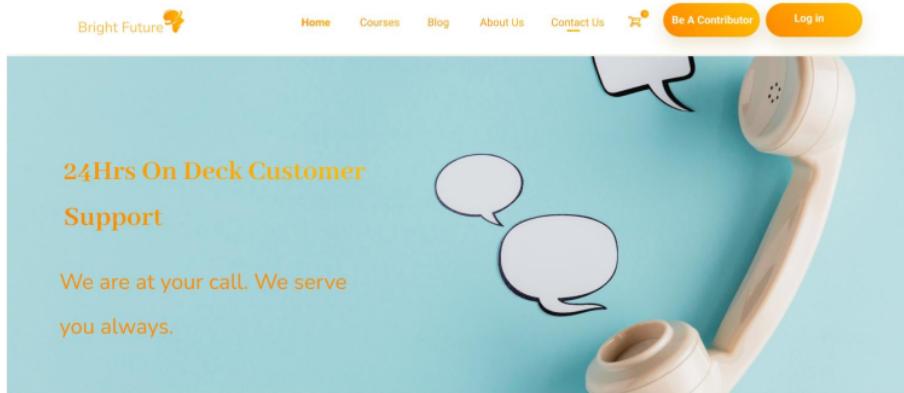
### 4. Memory

The header, top navigation bar, side navigation bar, and color palettes are all constant across the website. In terms of design, the cards are uniform.

### 5. Mapping

Each link in the side navigation menu is correctly matched to each other.

## Contact us

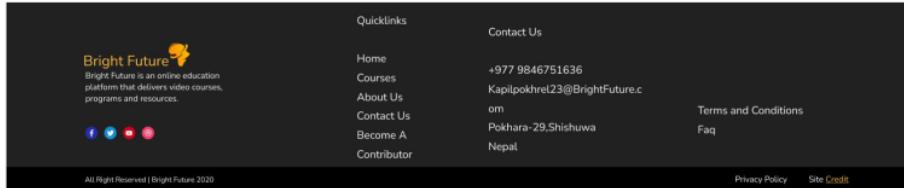


### Let's Talk!

We do normally get back within 48hrs. Please leave a message.

Full Name  
Country / Region  
Street Address  
City  
Your Message

Send Message



**Contact us page is shown in above design. This page consists of text boxes where users can type their message. The Yellow button with send message help users to make easy.**

## **5. Evaluation**

The purpose of the evaluation is to see if the software design meets the consumer's needs, as well as the product's mission and targets. The system's usability for various user groups will be assessed during the evaluation phase. Furthermore, the benefits and drawbacks of design characteristics will be established to enhance the design in the future.

### **5.1 Formative evaluation**

A formative evaluation will be undertaken often beginning with program creation to educate vendors and stakeholders about performance trends, if the Bright Futures goal is likely to be realized, and to identify operational reasons and constraints. The formative evaluation results, as well as any necessary adjustments to improve program execution, are subsequently included into the program. These assessments are generally simpler and more likely to be secret than summative assessments, and while they are frequently stated in program outlines, the information is rarely publicized.

### **5.2 Usability testing**

Usability is a statistic that assesses how user-friendly a user interface is. Usability also refers to techniques for enhancing ease of use during the design phase.

Learnability, efficiency, contentment, memory, and mistakes are the five quality components that make up usability. When users first use our website design, how simple is it for them to do the fundamental tasks is tells us the learnability of the website? How quickly can users accomplish activities after learning the design defines the efficiency of the website. How fast the user can use it after a time of not using the bright futures website. How many failures individuals have when using the system, how significant these failures are, and how quickly they may recover, as well as user pleasure when utilizing the bright future.

#### **Methods of usability testing**

##### i. Lab Usability Testing

Under the guidance of a moderator, laboratory usability testing takes place in a controlled setting. An administrator is a professional who wants real-time user input. During a controlled exam, moderators lead test participants

- through exercises, answer their questions, and reply to their feedback in real time.
- ii. Unmoderated Remote Usability testing

Without the presence of a supervisor, an unmoderated remote usability test is conducted. It delivers quick, low-cost, and trustworthy user test data that may be utilized to do additional research. Participants are encouraged to do activities in their own surroundings, with their own equipment, and without the presence of a moderator, resulting in a natural pleasure of the bright future. The cost of unmoderated testing is lower, but the findings are less comprehensive.

### **5.3 DECIDE Framework**

The DECIDE framework is a usability evaluation framework that acts as a step-step-by-step for examining components of the product designs requirements. It performs unit testing on all of the product's elements to match the requirements of the user and validate every unit of function.

In the DECIDE framework firstly we have to determine the objectives of the evaluation then look into the precise questions that need to be answered then determine the evaluation methodology and approaches that will be used to respond to the questions after that bright futures evaluators have to identify the challenges that bright futures have to deal with on a day to day and evaluators also have to think about the ethical difficulties and at the last analyze, interpret and present their findings.

We utilize the DECIDE framework to facilitate our assessments, which contains the following checklist to assist beginner evaluators:

#### **A. Determine the goal (D).**

This is the first stage of the DECIDE framework in this phase at the first bright futures evaluators must clarify the user demands. Evaluators must define the aims that will be pursued in the design of the proposed system after explaining the user's requests. Because the stated aims will influence the assessment on the chosen strategy, it is straightforward to pick the most appropriate technique to employ in executing the Bright futures website by selecting what goal to achieve.

As an example

Goal: verify that the final interface design is consistent

## **B. explore the question**

After determining the goal in the first stage to attain the purpose founded in the initial stage, evaluators should identify a way to achieve it by questioning that will lead to a result. In this stage, evaluators must find whether the final interface design is consistent or not. To know the consistency of the Bright futures website evaluators must search for the answer to these questions.

- a. In the UI metaphor utilized all through the design constant, or is it matched with a board description?
- b. Is still the command we are using is consistent?
- c. Is the color code for the general practice hyperlinked or not?
- d. Is there any ambiguity in the wording used?

## **C. choose evaluations paradigm and activities (c)**

once the goals for Bright futures have been established and the key question has been listed, the strategies must be chosen accordingly. In bright casesures case, a mix of strategies can be utilized to gain a variety of views/perspectives on the design. This question is primarily on the design's utility and usability. The use of unmoderated remote usability testing and laboratory usability testing is suitable. To increase the quality of the design, two methodologies were used to obtain distinct opinions from both the user and the expert.

## **D. identify the practical issue(I)**

- a. It is vital to identify the practical problems before commencing the review process. The resources needed to execute the session are referred to as practical issues.

For example:

**I. Users** – This is the most significant part of the assessment process since it needs you to choose the right user based on the precise requirements that have been identified. (This refers to those who are able to attend the program.)

**II. Facilities And Equipment** – Determine the kind and quantity of equipment required to run the session. For example, if you must utilize video recording, where should it be placed, if the user is pleased with it, how much n, and so on.

- a. It is vital to identify practical problems before beginning the review process.
- b. Practical considerations revolve around the resources required to run the session.

#### **E. Decide how to deal with the ethical issues**

- a. Bright future developers and evaluators must think about the ethical code. we must have to do more referring to the ethical code. personal information or the privacy of people should be secure and protected. Like personal details (education, health, financial status, phone number address, etc.) as an example, we can create informed consent form use of password encryptors, make the secure session use of post method to send then user data

#### **F. Evaluate present interpret the data**

After completing the above steps evaluators More specifically, is the approach employed trustworthy in examining all of the data obtained (quantitative or qualitative), Is the assessment capable of detecting the faults needed to establish validity, and are there any biases present when the results aren't obvious?

#### **5.4 Heuristic Evaluation**

<sup>4</sup>Heuristic assessment is a process in which experts examine and report on the usability of a user interface in distinct lessons using rules of thumb. Testers employ well-established heuristics to unearth data that might aid design teams in improving product usability from the outset.

It comprised a collection of heuristics or principles that industry professionals soon adopted for evaluating human-computer interfaces. A heuristic is a way for solving issues or making decisions that is quick and easy to employ.  
<sup>3</sup>Heuristic assessment is used by professional evaluators in user experience (UX) design to objectively determine the usability of a design product. They sift over a set of requirements as specialists to find difficulties that design teams may have overlooked. The Nielsen-Molich heuristic states that software should:

##### **1. Visibility Of Status**

Bright futures should constantly keep people informed about what is happening on by offering appropriate feedback as soon as possible.

## 2. System to Real Word Compatibility

The bright future's design must be expressed in the consumers' tongue. Use language, ideas, and concepts that the learner is familiar with instead of internal jargon. By structuring information logically and intuitively, you may adhere to real-world customs.

## 3. User Control and user's liberty

When executing an action, users frequently make errors. They need a designated emergency exit so they may get away from the undesirable activity without having to go into a lengthy process.

## 4. Standards and consistency

Users should never make assumptions about whether different words, circumstances, or behaviors imply the same thing. Participate in the platform and sector agreement.

## 5. Prevention of Error

While excellent error messages are important, the greatest designs focus on avoiding issues from occurring in the first place. Remove or verify error-prone situations, and provide consumers the choice to affirm before committing to an activity.

## 6. Recognize rather than remember

To decrease user memory stress, make options, items, and actions apparent. It should not be necessary for the user to retrieve data from one portion of the interface to the next. Information relevant for the usage of the design should be presented or easily accessible where possible.

## 7. Efficiency and flexibility of use

Shortcuts, which are invisible from beginner users, can speed up interaction for power users, allowing the layout to be customized to suit both rookie and experienced users.

## 8. Minimalist and aesthetic design

In the user interface, information that is either worthless or infrequently utilized should be removed. On an interface, each extra data unit competes with the relevant data units, diminishing their relative accessibility.

## 9. Assist users in identifying, diagnosing, and recovering from mistakes.

The bright future warning message must be written in simple English, not code, and should state the problem and provide a practical solution.

## 10. Instructions and Documentation

It is preferable if the technology does not need to be explained further. Documentation, on the other hand, is required to assist users in understanding how to do their tasks.

## Evaluation

NAME	ISSUE	PAGE	RECOMMENDATION
Bikram Shrestha	On the courses page button or links are not visible	Courses	On the courses, page links must be visible to book the courses.
	On the home page after scrolling the content navbar is not visible	Courses Home page	Free course and paid courses also must be categories  The navbar must be sticky.

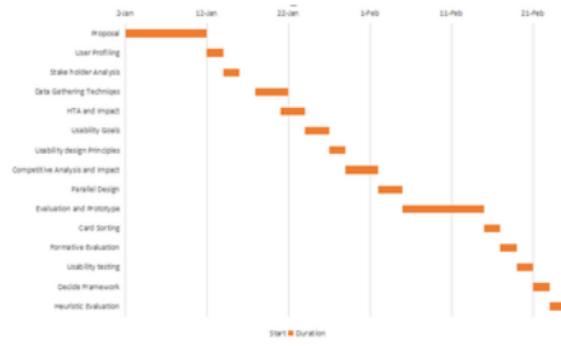
NAME	ISSUE	PAGE	RECOMMENDATION
Suraj ranabhat	Payment system	payment	Payment options for the student are only debit cards but for a better experience many payment options like eSewa Khalti fone pay and many other
		Home page	Language selection mode also can be added
	Icons	All page	By using the icons you can make it easy to understand.

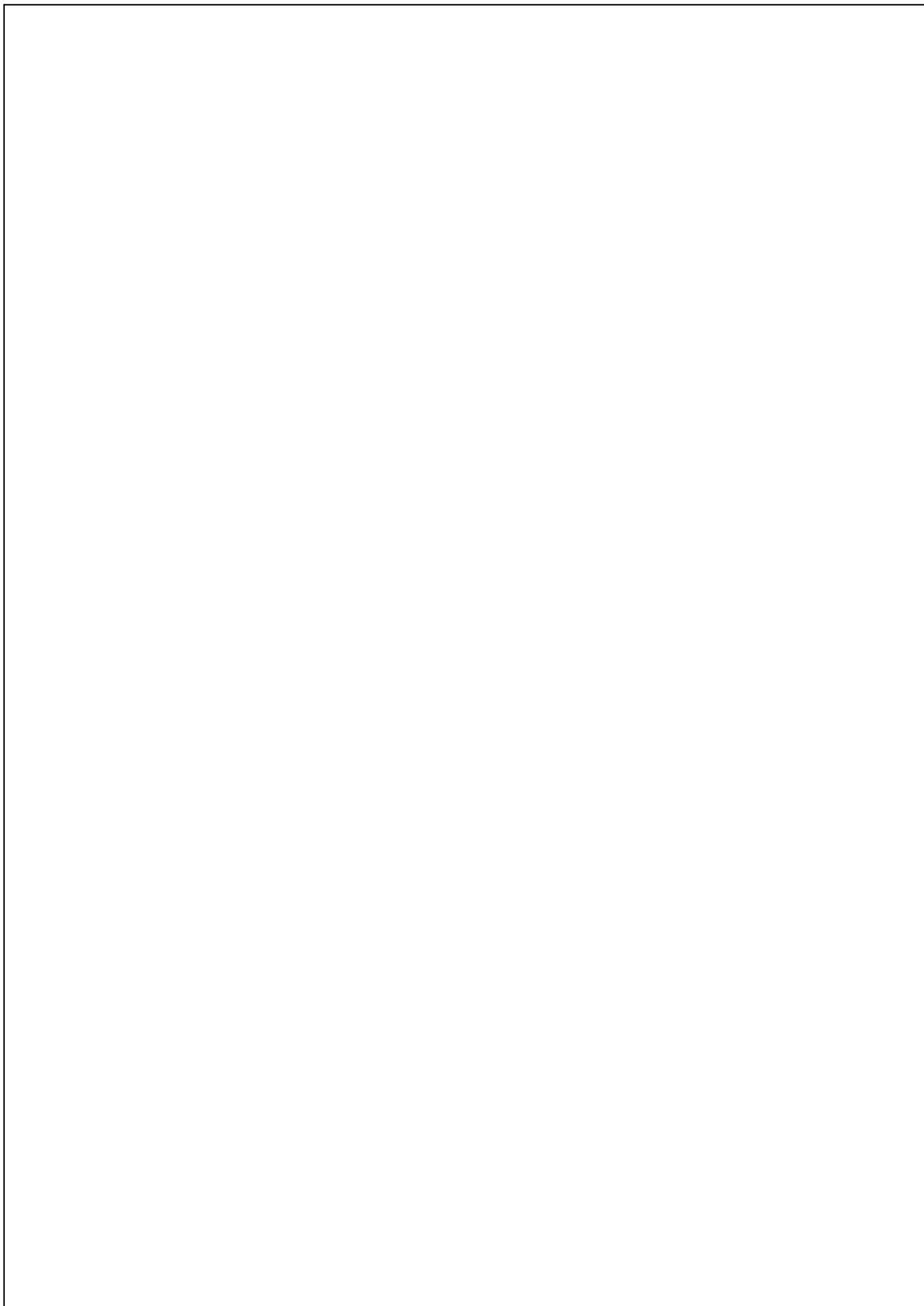
NAME	ISSUE	PAGE	RECOMMENDATION
Tej Nagar	Help and documentation	Home page	You should add a section named help and provide documentation it makes the system easy to use for the users.
	Easy to remember	Course page	Icon and link must be visible to it make easy for the users to remember.
	Placement of content	Register page	The register page already has an account section that must be in the center.

## **6.Conclusion**

The Bright Future Student Webspace is a centralized platform for managing and carrying out all academic activities. This website will benefit everyone who is a part of the Bright Future. This website meets all of the Usability objectives and design methods that were previously stated. This website will have all of the necessary elements for e-learning, such as maintaining student data, posting assignments, paying fees, and so on. This website will be user-friendly and simple to use, requiring no further training to operate.

## 7.Gantt Chart







PRIMARY SOURCES

- |   |  |      |
|---|--|------|
| 1 | Submitted to Asia Pacific University College of Technology and Innovation (UCTI) | 3%   |
| 2 | Submitted to Southampton Solent University                                       | 1 %  |
| 3 | Submitted to University of Greenwich   | 1 %  |
| 4 | Submitted to Harare Institute of Technology                                      | <1 % |
- Student Paper      Student Paper      Student Paper      Student Paper

Exclude quotes      Off  
Exclude bibliography      On

Exclude matches      Off