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(Deemed to be University)

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Technology in Information Technology

By
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COMPUTING

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY
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DEPARTMENT OF INFORMATION TECHNOLOGY

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of NITHISH KUMAR C.M (Reg. No: 39120077) who carried out the project entitled "Flight Booking App Screens" under my supervision from February 2022 to April 2022.

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Submitted for Viva voce Examination held on _____

Internal Examiner

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DECLARATION

I, **NITHISH KUMAR C.M** hereby declare that the project report entitled **Flight Booking App Screens** done by me under the guidance of **Dr. Y.BEVISH JINILA** is submitted in partial fulfillment of the requirements for the award of Bachelor of Technology Degree in Information Technology.

DATE:

PLACE:

SIGNATURE OF THE CANDIDATE

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I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department of Information Technology** who were helpful in many ways for the completion of the project.

TRAINING CERTIFICATE

CERTIFICATE

OF APPRECIATION



Macincode recognizes the hard work and dedication of

Nithish Kumar C M

for the successful completion of an online course and a mini-project on
"UI/UX Master Design" in association with "PRIDE - SATHYABAMA INSTITUTE
OF SCIENCE AND TECHNOLOGY" from Feb 23, 2022 to April 6, 2022.

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ABSTRACT

Advances in personal computing and information technologies have fundamentally transformed how maps are produced and consumed, as many maps today are highly interactive and delivered online or through mobile devices.

An UI (user interface) / UX (user experience) describes a set of concepts, guidelines, and workflows for critically thinking about the design and use of an interactive product, map-based or otherwise. This entry introduces core concepts from UI/UX design important to cartography and visualization, focusing on issues related to visual design.

A fundamental distinction is made between the use of an interface as a tool and the broader experience of an interaction, a distinction that separates UI design and UX design. Accordingly, we need to consider interaction as a fundamental complement to representation in cartography and visualization.

This entry contains core concepts from UI/UX design important to imagination and visualization that specialize in issues associated with visual design.

TABLE OF CONTENTS

CHAPTER No.	TITLE	PAGE No
	ABSTRACT	
1.	INTRODUCTION	
	1.1 Main purpose	8
	1.2 The User Interface versus the User Experience	8
	1.3 Scholarly Influences on UI/UX Design in Cartography and Visualization	9
	1.4 Objectives	10
2.	AIM AND SCOPE OF THE PRESENT INVESTIGATION	
	2.1 Aim	10
	2.2 <i>Designing the User Experience with The stages</i>	11
	2.3 <i>Additional UX Frameworks</i>	12
3.	EXPERIMENTAL OR MATERIALS AND METHODS, ALGORITHM USED	
	3.1 The project discussion	12
	3.2 Methodology	13
	3.3 Algorithm used	14

3.4 Advantages with propped system 14

4.	RESULTS AND DISCUSSION	
	4.1 Results	15
5.	SUMMARY AND CONCLUSIONS	
	5.1 Referances	16
	5.2 Screen shots	16

CHAPTER 1 INTRODUCTION

1.1 Main purpose :

The UI and UX Design help to win the consumers' confidence and make them use the application providing them what they are looking for. The number of consumers we are getting on our application can measure the success of the great UI and UX.

1.2 The User Interface versus the User Experience :

Advances in personal computing and information technologies have fundamentally transformed how maps are produced and consumed, as many maps today are highly interactive and delivered online or through mobile devices. UI (user interface) / UX (user experience) describes a set of concepts, guidelines, and workflows for critically thinking about the design and use of an interactive product , map or otherwise.

This entry reviews the conceptual principles behind UI/UX, emphasizing visual design following other entries in the Cartography & Visualization section and complementing the technologically-oriented User Interfaces entry spanning GIScience in the Programming & Development section. UI and UX are not the same, separated in their focus on interfaces versus interactions.

An interface is a tool, and for digital mapping this tool enables the user to manipulate maps and their underlying geographic information. An interaction is broader than the interface, describing the two-way question-answer or request-result dialogue between a human user and a digital object mediated through a computing device.

Therefore, humans use interfaces, but they experience interactions, and it is the experience that determines the success of an interactive product (Norman, 1988). UI design describes the iterative set of decisions leading to a successful implementation of an interactive tool while UX design describes the iterative set of decisions leading to a successful outcome with the interactive, as well as a productive and satisfying process while arriving at this outcome. Accordingly, UI/UX often is reversed as UX/UI to emphasize the importance of designing the overall experience rather than just the interface.

1.3 Scholarly Influences on UI/UX Design in Cartography and Visualization:

Within GIScience, interaction most commonly is treated by the research thrust of geographic visualization (see Geovisualization). Interactivity supports visual thinking, enabling users to externalize their reasoning by requesting a wide range of unique map representations (DiBiase, 1990), thus overcoming the limitations of any single map design. Geovisualization encourages this interactive reasoning for the purpose of exploration rather than communication (see Cartography & Science), with the goal of generating new hypotheses and spontaneous insights about unknown geographic phenomena and processes (MacEachren & Ganter, 1990; MacEachren, 1994).

Today, UI/UX design requires consideration of use cases beyond exploratory geovisualization and users beyond expert researchers. Interaction allows users to view multiple (sometimes all) locations and map scales as well as customize the representation to their interests and needs. Interaction also empowers users in the cartographic design process, improving accessibility to geographic information and

dissolving traditional boundaries between mapmaker and map user (see Cartography & Power). Increasingly, interaction enables geographic analysis, linking computing to cognition in order to scale the human mind to the complexity of the mapped phenomenon or process (see Geovisual Analytics).

1.4 Objectives :

- The designing, building, and iterating on complex user workflows.
- collaborating with a cross-functional team of software engineers, product managers, and other designers for building and scaling design systems.
- delivering a great, end-to-end user experience for all customers, from tech-savvy power users to less advanced, small-scale operators.
- Gather and evaluate user requirements in collaboration with product managers and engineers
- Design graphic user interface elements, like menus, tabs and widgets
- It Develop UI mockups and prototypes that clearly illustrate how sites function and look like
- Providing advice and guidance on the implementation of UX research methodologies and testing activities in order to analyze and predict user behavior.
- Adhering to style standards on typography and graphic design.

CHAPTER 2

AIM AND SCOPE OF THE PRESENT INVESTIGATION

2.1 AIM :

The aim of this UI/UX Project is to provide students with the knowledge of user-centered design, user -centered methods in design, graphic design on screens,

simulation and prototyping techniques, usability testing methods, interface technologies and user centered design in corporate perspective.

2.2 Designing the User Experience with the stages :

An interaction requires the user to employ perceptual, motor, and cognitive abilities as they view, manipulate, and interpret an interactive map. Norman (1988) offers a useful framework for conceptualizing a map interaction as a two-way dialogue or conversation, decomposing a single interaction exchange into seven discrete and observable stages:

1. Forming the goal: The goal is what the user is trying to achieve with the interface and therefore represents the user's motivation for using the interface (a need, interest, curiosity, etc.). Goals are described as "high-level" tasks, and may include exploration, analysis, synthesis, and presentation
2. Forming the intention: The intention is the specific map reading objective that the user completes in support of the goal. Accordingly, intentions are described as "low-level" tasks. Intentions include identification of a map feature, comparison of two map features, ranking of a set of map features, etc.
3. Specifying an action: The user then must translate their intention to the functions (described below as operators) implemented in the interface. The interface needs strong affordances—or signals to the user about how to interact with the interface—for the user to specify which operator best supports the intention before executing the action.
4. Executing an action: The user then must execute the specified action using input computing devices, such as a pointing device (e.g., mouse, touchscreen), keying device (e.g., keyboard, keypad), or other mode (e.g., gesture or speech recognition). Once the action is executed, the computing device processes the request and, if successful, returns a new map representation to the user.
5. Perceiving the system state: Once returned, the user then views the new representation. Here, strong feedback—or signals to the user about what happened as a result of the interaction—is needed to clarify how the map changed after the request.

6. Interpreting the system state: After perceiving the change to the map representation through feedback, the user then must make sense of the update. One way to describe this stage is completion of the intention: once a new map is returned, it can be used to carry out the user's low-level task and, if successful, generate a new geographic insight.
7. Evaluating the outcome: The evaluation compares the insight with the expected result to determine if the goal has been achieved. This includes critical evaluation of the insight ("does this seem right?") and meta-evaluation of the overarching goal ("do I have my answer?"). Following this evaluation, the user may revise their goal and initialize a new interaction exchange, restarting the seven stage sequence.

2.3 Additional UX Frameworks:

A number of disciplines, professions, and knowledge areas contribute to UI/UX design, including ergonomics, graphic design, human-computer interaction, information visualization, psychology, usability engineering, and web design. Additional frameworks for understanding UX design have been offered as UX becomes formalized conceptually and professionally (see Roth, 2013a, for a review).

For instance, Fitts' (1954) law providing an early understanding of pointing interactions was based on psychology studies about human bodily movement. Further, Foley et al.'s (1990; 2014) three design levels (the conceptual, operational, and implementational levels, as discussed for mapping by Howard & MacEachren, 1996) were derived from research on human-computer interaction while Garrett's (2010) five planes of design (the surface, skeleton, structure, scope, and strategy planes, as discussed for mapping by Tsou, 2011) are offered from web design experience. Finally, most recommendations describe UI/UX as a design process that includes multiple, user-centered evaluations, making use of methods and measures established in Usability Engineering (see Usability Engineering).

CHAPTER 3

EXPERIMENTAL OR MATERIALS AND METHODS, ALGORITHMS USED

3.1 THE PROJECT DISCUSSION :

As with representation design and the visual variables , an interaction can be deconstructed into its basic building blocks. Interaction primitives describe the fundamental components of interaction that can be combined to form an interaction strategy (Roth, 2012). Scholars in cartography (e.g., Cartwright et al., 2001) and related fields (e.g., Thomas & Cook, 2005) identify development of a taxonomy of interaction primitives as the most pressing need for the understanding of interaction, as such a taxonomy articulates the complete solution space for UI/UX design. Accordingly, there are now a range of taxonomies offered in the UI/UX literature, including taxonomies specific to cartography and visualization (e.g., Dykes, 1997; MacEachren et al., 1999;).

The Interaction primitive taxonomies differ by the stages of interaction they include. While UX design considers primitives at all stages, UI design primarily focuses upon interaction operator primitives (Stage 3: Specifying the Action), or the generic functions implemented in the interactive that enable the user to manipulate the display. Operators include panning, zooming, and detail retrieval—functions common to “slippy” web maps using tilesets (Web Mapping)—as well as reexpression to different visual overviews, overlay of context information, and filtering across multiple facets of the mapped dataset—functions essential to Shneiderman’s (1996) information seeking mantra in big data visualizations.

3.2 METHODOLOGY :

Mobile app users like applications that are easy to use and more engaging. The most successful applications like WhatsApp have relentlessly offered their users seamless navigation and an attractive interface. Developing an application that has

an efficient UI/UX design is the starting point of having a successful application. This is because most app users prefer an app that is visually appealing and user-friendly over one that has great functionality but with a less attractive appearance.

A great interface gives users a realistic feel when using your app. It also provides them with a continuous flow of valuable information. More and more users will be interested in your app hence creating natural traffic. This will lead to a boost in conversion rates and thereby grow your brand name. It is therefore essential to hire an experienced UI/UX designer who will make sure your mobile app is interactive and pleasant to your users.

3.3 ALGORITHM USED :

UX Designing is an art and science in itself. It is the experience an end user has when interacting with a company's products and services from the beginning to the end. It encompasses the user's experience throughout the journey, from the first point of contact, to the ease of use, navigation, and even checkout.

an efficient UI/UX design for an app is always a priority for most app owners. This requires thorough research and prior planning in order to understand the needs of your users and the problem you intend to solve with your app. Regardless of your needs, you will have to come up with a design that works.

3.4 Advantages with the proposed system :

1. Improves customer acquisition - Customer acquisition simply refers to getting new customers. The process involves convincing or persuading customers that a company's product or service is worth their hard-earned money.
2. Helps with customer retention - The same with customer acquisition, customer retention also requires a lot of strategy and forethought. The strategies used to keep customers should enable the business to provide and get value from their existing customer base.
3. Optimizes development time and cost - People hate using apps that are buggy, crashes frequently, and with a dated design. Through their help, they'll be able to integrate an efficient and optimized UI/UX saving valuable time and cost.

4. Increased productivity - All businesses need an interface that's cohesive enough that can help their organization market its products and services to earn a profit. In order to develop a solution using simple yet effective user experience and design can help to inspire employees to work with enthusiasm and gusto.

5. More user engagement - if the visitors don't engage with your website or app, it would be pointless to pursue all those other strategies. It is, therefore, a priority for all UI/UX designers to prioritize user engagement and use it to inform their design and style choices.

CHAPTER 4

RESULT AND DISCUSSION, PERFORMANCE ANALYSIS:

4.1 RESULT:

User Experience (UX) Design is the procedure of improving the overall experience of the users when they interact with the application or website in order to achieve its objective to provide the maximum customer satisfaction. It keeps customers in mind and creates the basic skeleton of any application. It mainly focuses on wireframing an application and structuring all its components and elements appropriately to create the user flow.

A great interface gives users a realistic feel when using your app. It also provides them with a continuous flow of valuable information. More and more users will be interested in your app hence creating natural traffic. This will lead to a boost in conversion rates and thereby grow your brand name. It is therefore essential to hire an experienced UI/UX designer who will make sure your mobile app is interactive and pleasant to your users.

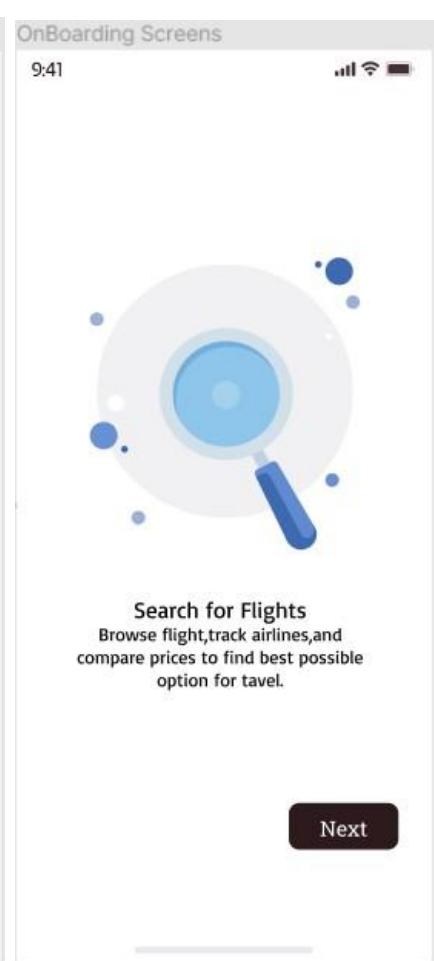
CHAPTER 5

SUMMARY AND CONCLUSION:

5.1 REFERENCES :

- Kevin J. Marcus, Aaron (2015). [*Design, User Experience, and Usability: Design Discourse*](#). p. 340. [ISBN 978-3319208862](#). Retrieved 26 July 2015.
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5.3 SCREEN SHOTS :



OTP Page

9:41



OTP Verification

We will send you a one-time password on this mobile number

Enter Mobile Number

+91 11111 22222

Get OTP

Sign In Page

9:41

Sign In



Email

Password

Sign in

☐ Remember me [Forgot Password?](#)

or sign in with



Don't have an account? Sign up

OTP Verification

9:41



OTP Verification

Enter the OTP sent to
+91 11111 22222

7 3 2 5

[Didn't receive OTP? Resend OTP](#)

Verify

Sign Up Page

9:41

Sign Up



Full Name

Email

Password

Sign up

☐ I agree to the terms of service and the privacy policy

☐ Remember me [Forgot Password?](#)

or sign up with



Already a member? Sign in

Search for Flights

9:41

Book Your Flight

One Way **Round Trip**

Depart From:
Chennai, India

Going to:
kula Lumpur, Malaysia

Departure Date:
Wed, 11 Dec

Class: **Economy** Passengers: **1 Adult**

Search for

Booking Page

9:41

Air 8B43

Wed, 11 Dec **Economy Class**

MAA **KUL**
Chennai Kula Lumpur

Economy Class

1	2	3	4
5	6	7	8
9	10	11	12

[Random Selection](#)

Departure: **Wed, 11 Dec, 04:00** Arrive: **Wed, 11 Dec, 07:00**

Go to Checkout

