Dr. ZAKIR HUSAIN COLLEGE, ILAYANGUDI

DEPARTMENT OF PHYSICS

PROJECT REPORT

ON

DATA ANALYTICS

TRACING THE GROWTH OF GLOBAL COMMUNITY- A POPULATION FORECASTING ANALYSIS

TEAM ID: NM2023TMID25836

1. ALRAIYAN M 0620122002 asalu6620122002
2. BRINTHASRI V 0620122005 asalu6620122002
3. BHUVANESHWARI K 0620122004 asalu6620122004
4. ROSHAN SAFEEKA S 0620122013 asalu6620122013

Faculty incharge,

Mr. P. KALEEL AHAMED M.Sc., M.Phil.,
ASSISTANT PROFESSOR,
DEPARTMENT OF PHYSICS,
Dr. ZAKIR HUSAIN COLLEGE,
ILAYANGUDI.

OVERVIEW AND PURPOSE

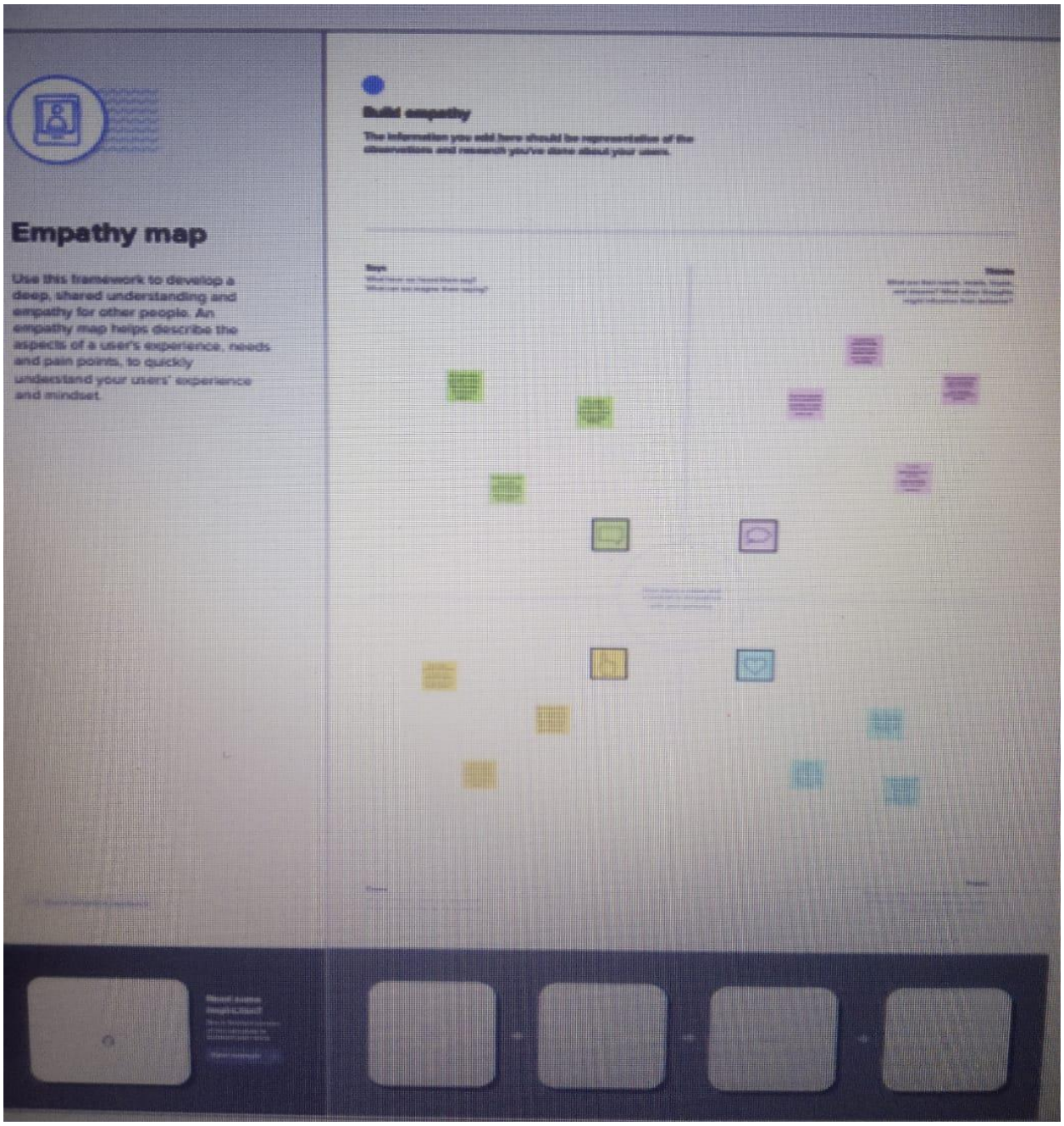
The world's population is more than three times larger than it was in the mid-twentieth century. The global human population reached 8.0 billion in mid-November 2022 from an estimated 2.5 billion people in 1950, adding 1 billion people since 2010 and 2 billion since 1998. The world's population is expected to increase by nearly 2 billion persons in the next 30 years, from the current 8 billion to 9.7 billion in 2050 and could peak at nearly 10.4 billion in the mid-2080s.

This dramatic growth has been driven largely by increasing numbers of people surviving to reproductive age, the gradual increase in human lifespan, increasing urbanization, and accelerating migration. Major changes in fertility rate have accompanied this growth. These trends will have far-reaching implications for generations to come.

Population forecasts are used by governments and the private sector for planning, with horizons up to about three generations (around 2100) for different purposes. The traditional methods are deterministic using scenarios, but probabilistic forecasts are desired to get an idea of accuracy, assess changes, and make decisions involving risks. In a significant breakthrough, since 2015, the United Nations has issued probabilistic population forecasts for all countries using a Bayesian methodology that we review here. Assessment of the social cost of carbon relies on long-term forecasts of carbon emissions, which in turn depend on even longer-range population and economic forecasts, to 2300. We extend the UN method to very-long range population forecasts by combining the statistical approach with expert review and elicitation. While the world population is projected to grow for the rest of this century, it will likely stabilize in the 22nd century and decline in the 23rd century.

PROPLEM DESIGNING AND DESIGN THINKING

EMPATHY MAP

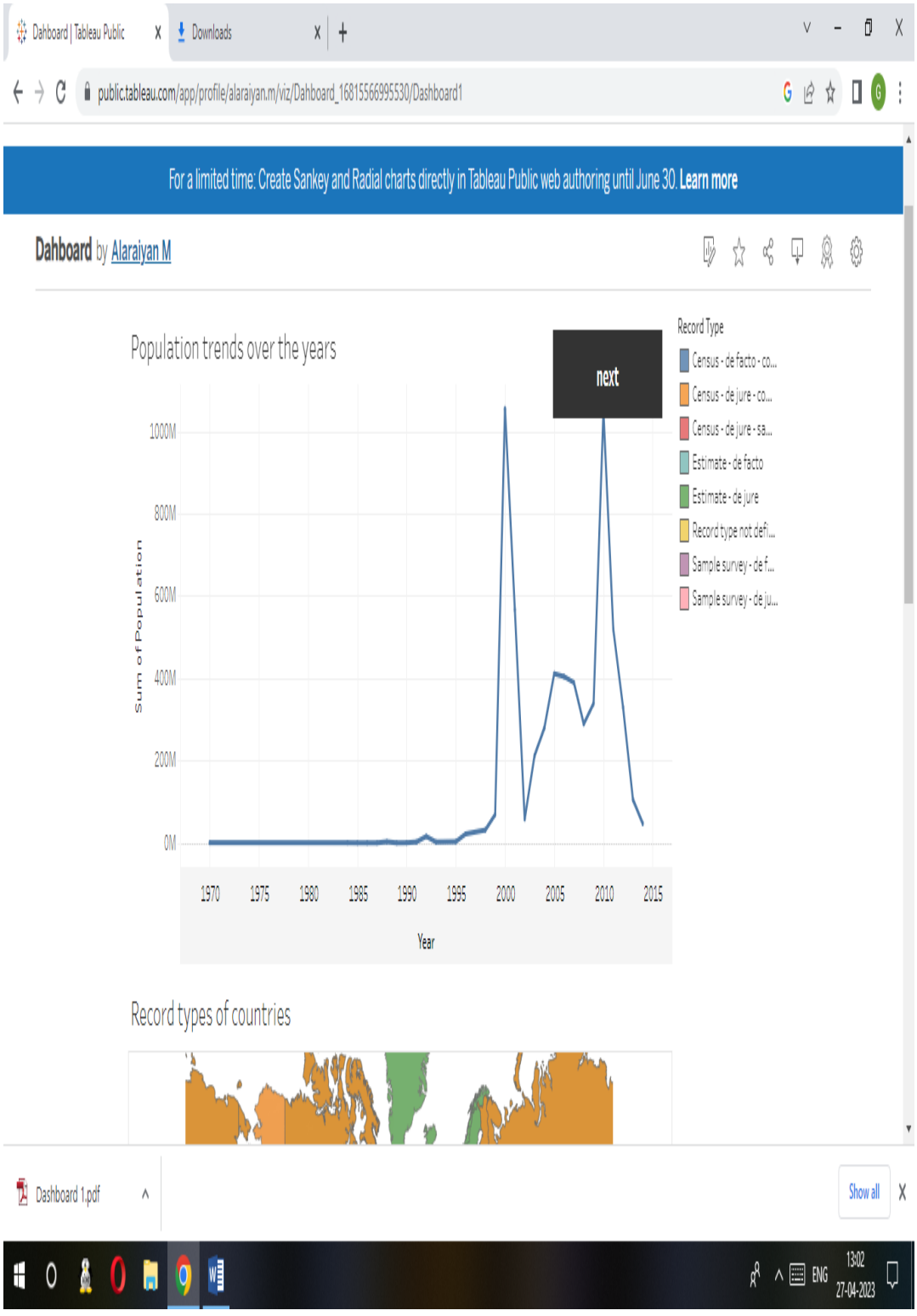


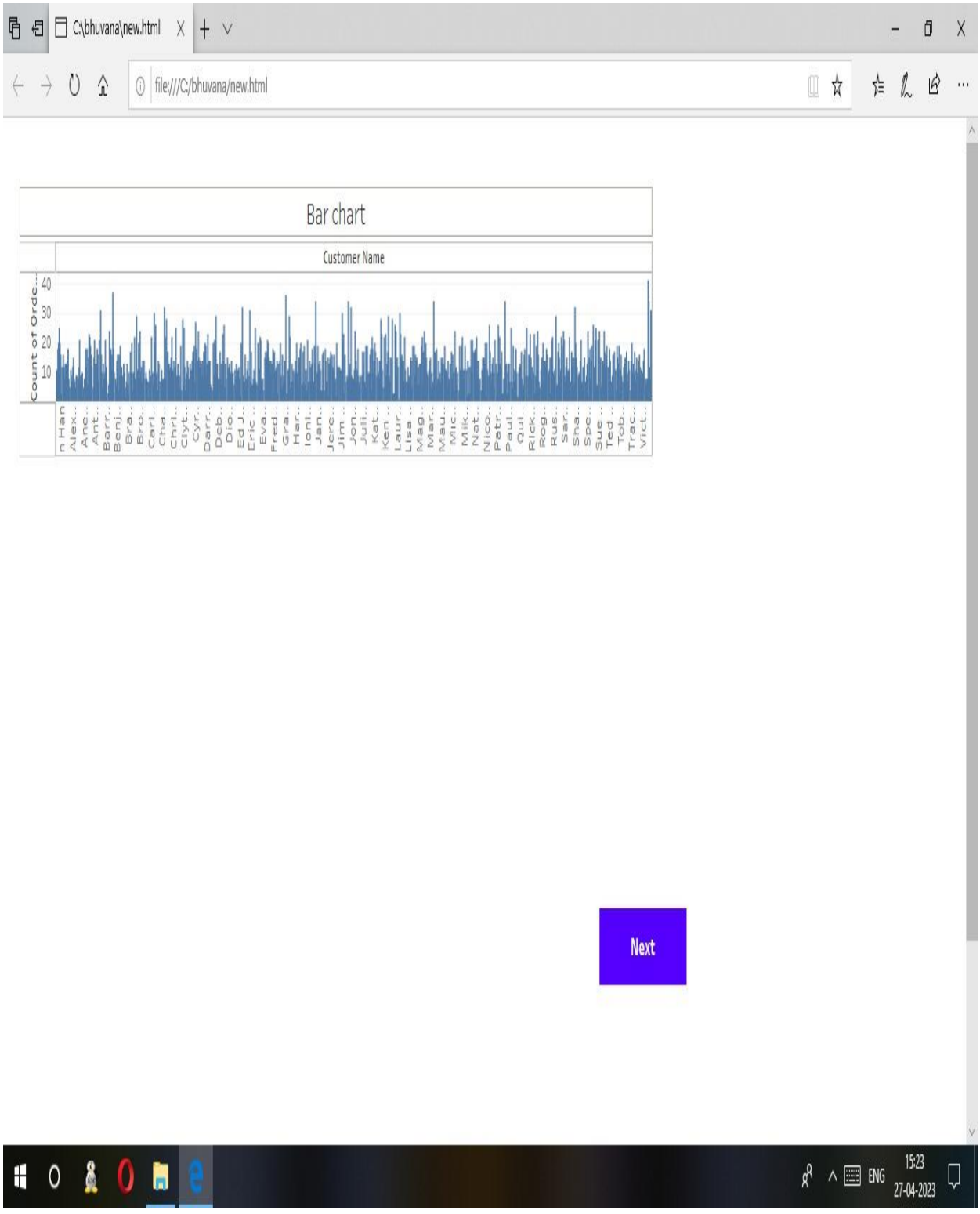
BRAINSTORMING AND IDEALISATION

RESULT

DASHBOARD AND STORY


Dahboard m | Tableau Public
Downloads
public.tableau.com/app/profile/alaraiyan.m/viz/Dahboardm/Story1
salesforce
tableau public
Create
Resources
For a limited time: Create Sankey and Radial charts directly in Tableau Public web authoring until June 30. Learn more
Dahboard m by Alaraiyan M
Story 1
Population trends over the years
population trend by sex
cities with avg population
cities by highest avg population
Population by city type
Population of city by year
Country or Area
Year
1978
2014
City
Brazil
China
Egypt
India
Indonesia
Japan
Pakistan
Republic of ..
United King..
6th of Octo..
154,093
AÂşaiÅćnd..
156,474
Abaeteluba
163,802
Abbotabad
106,101
Aberdeen
212,125
Aberdeensh..
226,871
Abiko
654,213
Abilene (TX)
Abo Keber
103,175
Abohar
124,339
Achalpur
107,316
Dashboard 1.pdf
Show all
ENG
13:03
27-04-2023


Dahboard | Tableau Public
Downloads
public.tableau.com/app/profile/alaraiyan.m/viz/Dahboard_16815566995530/Dashboard1
For a limited time: Create Sankey and Radial charts directly in Tableau Public web authoring until June 30. Learn more
Dahboard by Alaraiyan M
Population trends over the years
next
Record Type
Census - de facto - co...
Census - de jure - co...
Census - de jure - sa...
Estimate - de facto
Estimate - de jure
Record type not defi...
Sample survey - de f...
Sample survey - de ju...
Sum of Population
1000M
800M
600M
400M
200M
0M
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
Year
Record types of countries
Dashboard 1.pdf
Show all
ENG
13:02
27-04-2023


C:\bhuvana\new.html
file:///C:/bhuvana/new.html
Bar chart
Customer Name
Count of Orde..
40
30
20
10
n Han
Alex..
Ane..
Ant..
Barr..
Benj..
Bra..
Bro..
Carl..
Cha..
Chri..
Cryt..
Cyr..
Darr..
Deb..
Dio..
Ed J..
Eric ..
Eva..
Fred..
Gra..
Har..
Ioni..
Jan..
Jere..
Jim..
Jon..
Juli..
Kat..
Ken..
Laur..
Lisa ..
Mag..
Mar..
Mau..
Mic..
Mik..
Nat..
Nico..
Patr..
Paul..
Qui..
Rick..
Rog..
Rus..
Sar..
Sha..
Spe..
Sue ..
Ted ..
Tob..
Trac..
Vict..
Next
ENG
15:23
27-04-2023

APPLICATION

ADVANTAGES

It is used to estimate the likelihood of a population's extinction and indicate the urgency of recovery efforts, and identify key life stages or processes that should be the focus of recovery efforts. analysation is also used to identify factors that drive population dynamics, compare proposed management options and assess existing recovery efforts. analysation is frequently used in endangered species management to develop a plan of action, rank the pros and cons of different management scenarios, and assess the potential impacts of habitat loss.

DISADVANTAGES

A large quantity of field data is desirable for analysation; some conservatively estimate that for a precise extinction probability assessment extending *T* years into the future, five-to-ten times *T* years of data are needed. Datasets of such magnitude are typically unavailable for rare species; it has been estimated that suitable data for analysation is available for only 2% of threatened bird species. analysation for threatened and endangered species is particularly a problem as the predictive power of ANALYSATION plummets dramatically with minimal datasets.

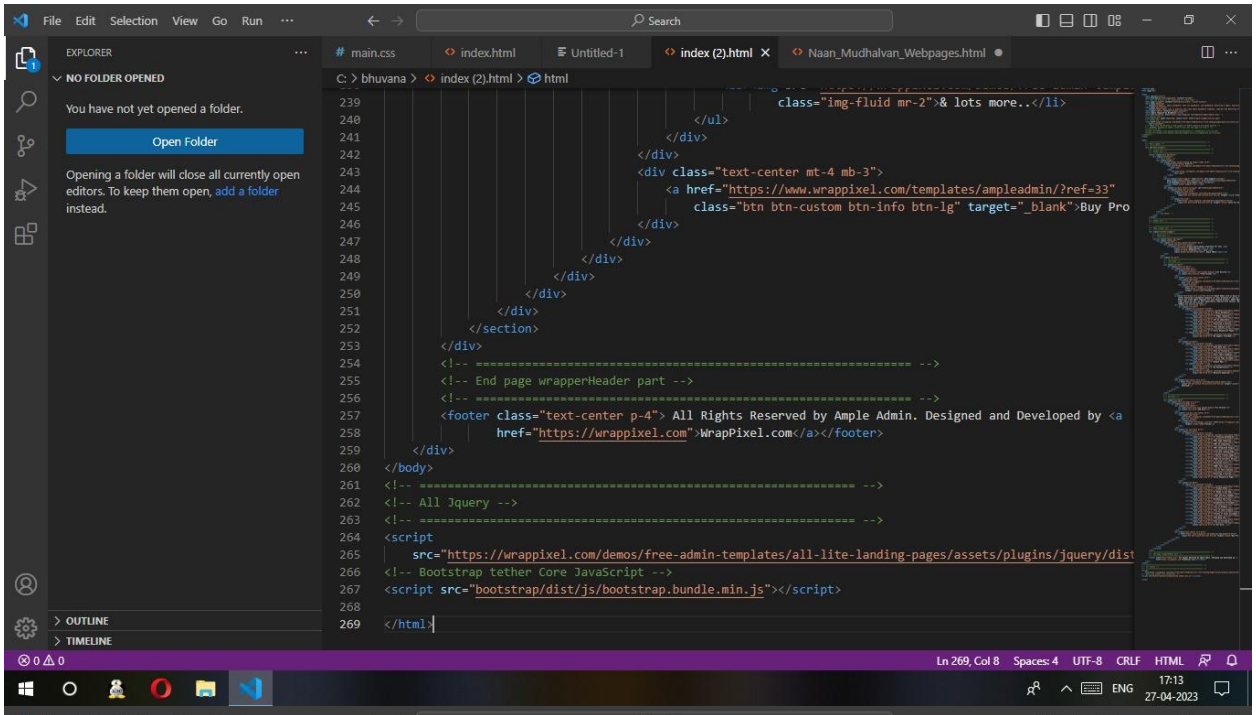
FUTURE SCOPE

analysations in combination with sensitivity analysis can also be used to identify which vital rates has the relative greatest effect on population growth and other measures of population viability. For example, a study by Manlik *et al.* (2016) forecast the viability of two bottlenose dolphin populations in Western Australia and identified reproduction as having the greatest influence on the forecast of these populations. One of the two populations was forecast to be stable, whereas the

other population was forecast to decline, if it isolated from other populations and low reproductive rates persist. The difference in viability between the two studies was primarily due to differences in reproduction and not survival. The study also showed that temporal variation in reproduction had a greater effect on population growth than temporal variation in survival

APPENDIX

SOURCE CODE

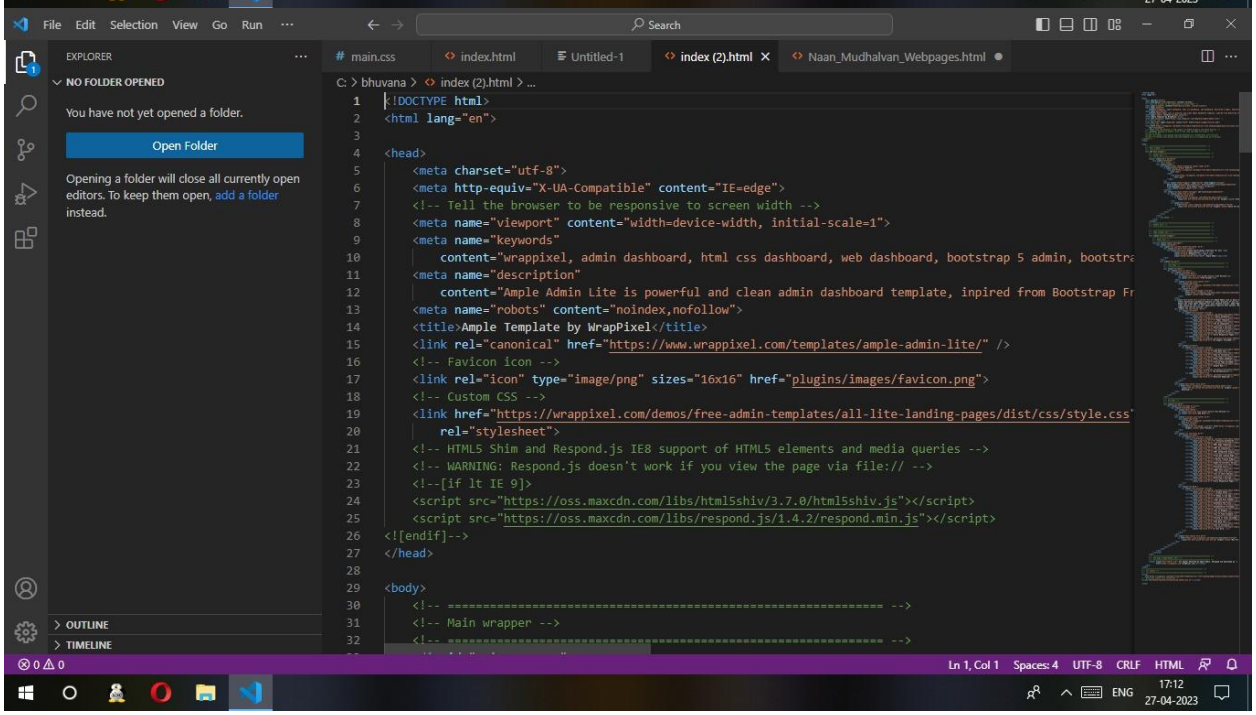

File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
C: > bhuvana > index (2).html > html
class="img-fluid mr-2">& lots more..

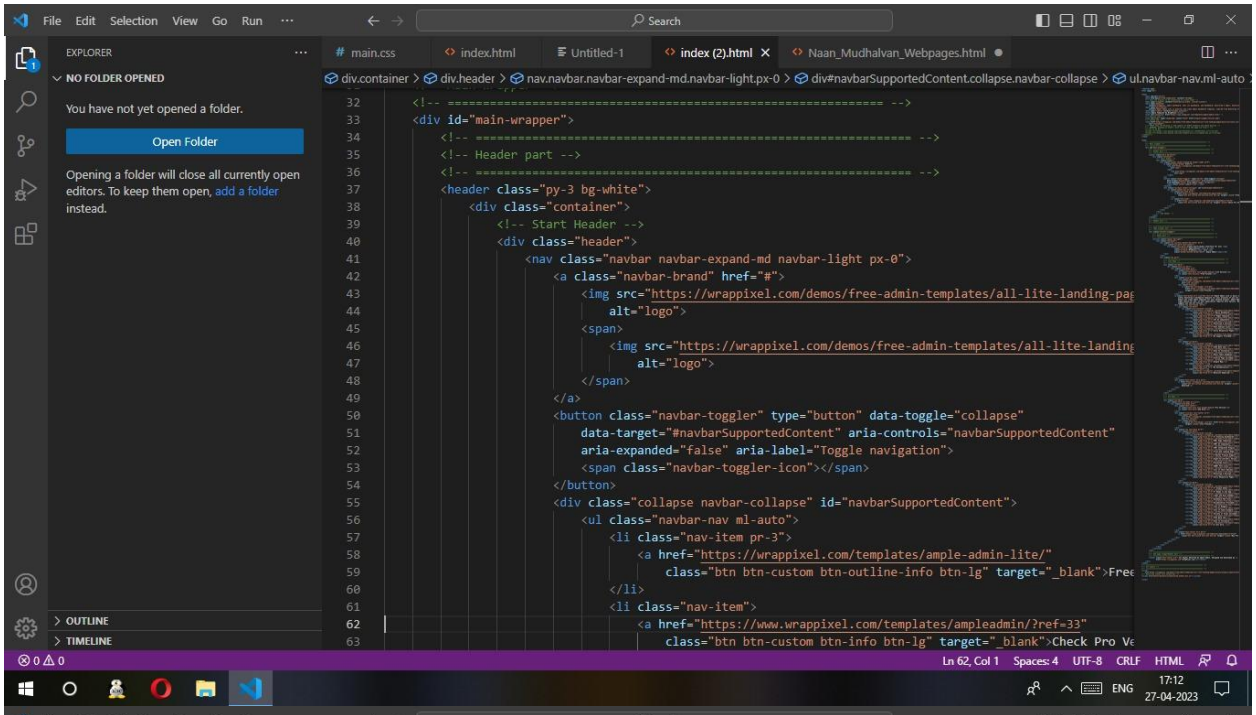
<a href="https://www.wrappixel.com/templates/ampleadmin/?ref=33"
class="btn btn-custom btn-info btn-lg" target="_blank">Buy Pro

</section>

<!-- == -->
<!-- End page wrapperHeader part -->
<!-- == -->
<footer class="text-center p-4"> All Rights Reserved by Ample Admin. Designed and Developed by <a
href="https://wrappixel.com">WrapPixel.com</footer>

</body>
<!-- == -->
<!-- All Jquery -->
<!-- == -->
<script
src="https://wrappixel.com/demos/free-admin-templates/all-lite-landing-pages/assets/plugins/jquery/dist
<!-- Bootstrap tether Core JavaScript -->
<script src="bootstrap/dist/js/bootstrap.bundle.min.js"></script>
</html>
OUTLINE
TIMELINE
Ln 269, Col 8 Spaces: 4 UTF-8 CRLF HTML
ENG
17:13
27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
C: > bhuvana > index (2).html > ...
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<!-- Tell the browser to be responsive to screen width -->
<meta name="viewport" content="width=device-width, initial-scale=1">
<meta name="keywords"
content="wrappixel, admin dashboard, html css dashboard, web dashboard, bootstrap 5 admin, bootstra
<meta name="description"
content="Ample Admin Lite is powerful and clean admin dashboard template, inpired from Bootstrap Fr
<meta name="robots" content="noindex,nofollow">
<title>Ample Template by WrapPixel</title>
<link rel="canonical" href="https://www.wrappixel.com/templates/ample-admin-lite/" />
<!-- Favicon icon -->
<link rel="icon" type="image/png" sizes="16x16" href="plugins/images/favicon.png">
<!-- Custom CSS -->
<link href="https://wrappixel.com/demos/free-admin-templates/all-lite-landing-pages/dist/css/style.css
rel="stylesheet">
<!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
<!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
<!--[if lt IE 9]>
<script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
<script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
<![endif]-->
</head>
<body>
<!-- == -->
<!-- Main wrapper -->
<!-- == -->
OUTLINE
TIMELINE
Ln 1, Col 1 Spaces: 4 UTF-8 CRLF HTML
ENG
17:12
27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
div.container > div.header > nav.navbar.navbar-expand-md.navbar-light.px-0 > div#navbarSupportedContent.collapse.navbar-collapse > ul.navbar-nav.ml-auto
<!-- ========== -->

<!-- Header part -->
<header class="py-3 bg-white">

<!-- Start Header -->

<nav class="navbar navbar-expand-md navbar-light px-0">

<img src="https://wrappixel.com/demos/free-admin-templates/all-lite-landing-pag
alt="logo">

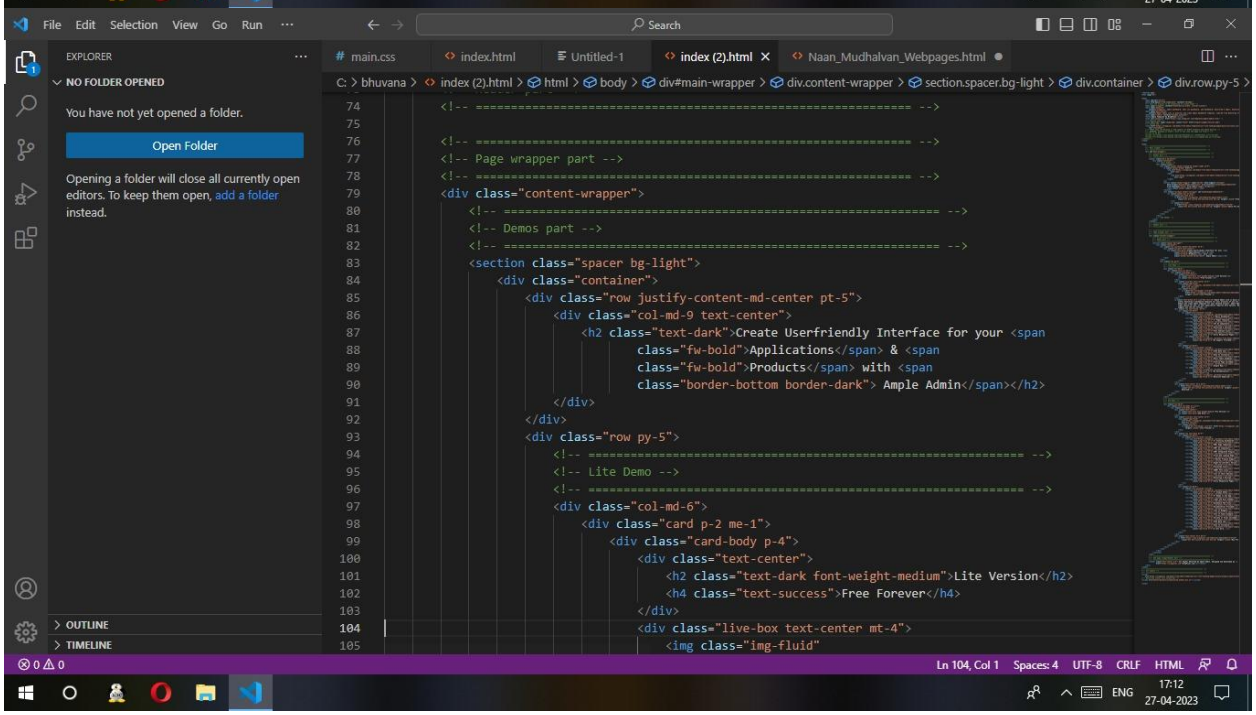
<img src="https://wrappixel.com/demos/free-admin-templates/all-lite-landing
alt="logo">

<button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent"
aria-expanded="false" aria-label="Toggle navigation">

</button>

<ul class="navbar-nav ml-auto">
<li class="nav-item pr-3">
<a href="https://wrappixel.com/templates/ample-admin-lite/"
class="btn btn-custom btn-outline-info btn-lg" target="_blank">Free

<li class="nav-item">
<a href="https://www.wrappixel.com/templates/ampleadmin/?ref=33"
class="btn btn-custom btn-info btn-lg" target="_blank">Check Pro Ve
OUTLINE
TIMELINE
Ln 62, Col 1 Spaces: 4 UTF-8 CRLF HTML
ENG
17:12
27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
C: > bhuvana > index (2).html > html > body > div#main-wrapper > div.content-wrapper > section.spacer.bg-light > div.container > div.row.py-5 >
<!-- ========== -->
<!-- ========== -->
<!-- Page wrapper part -->
<!-- ========== -->

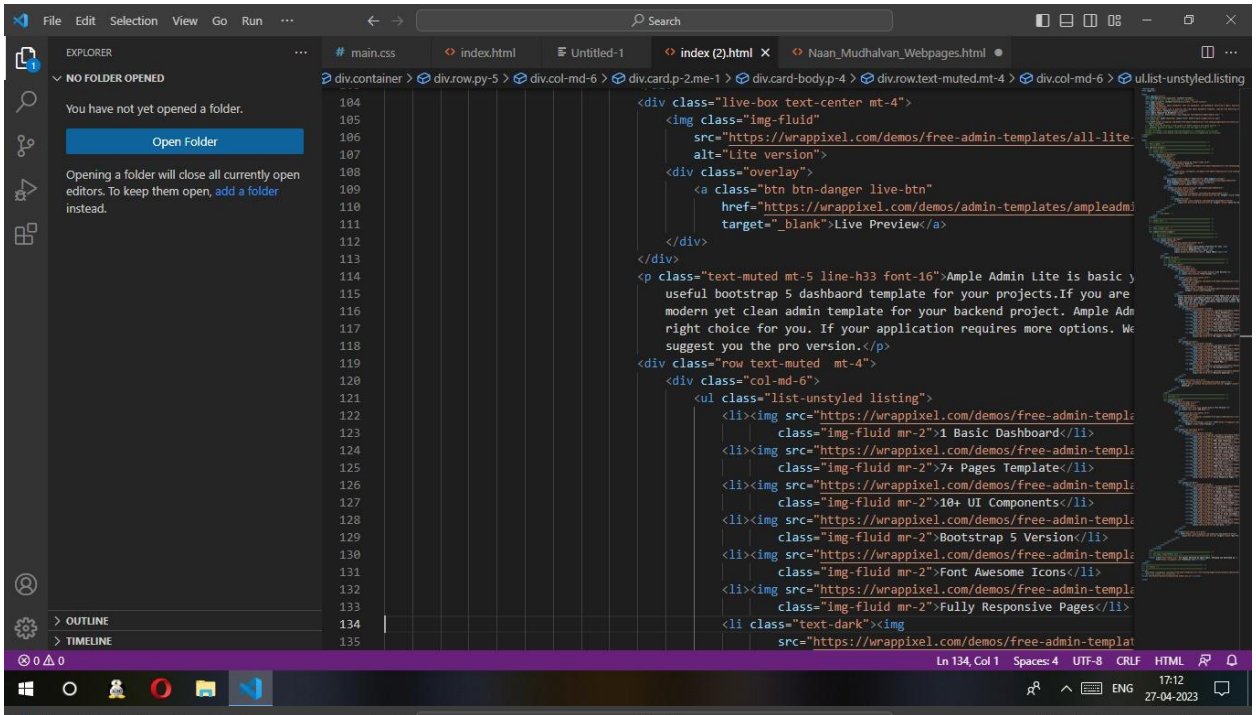
<!-- ========== -->
<!-- Demos part -->
<!-- ========== -->
<section class="spacer bg-light">

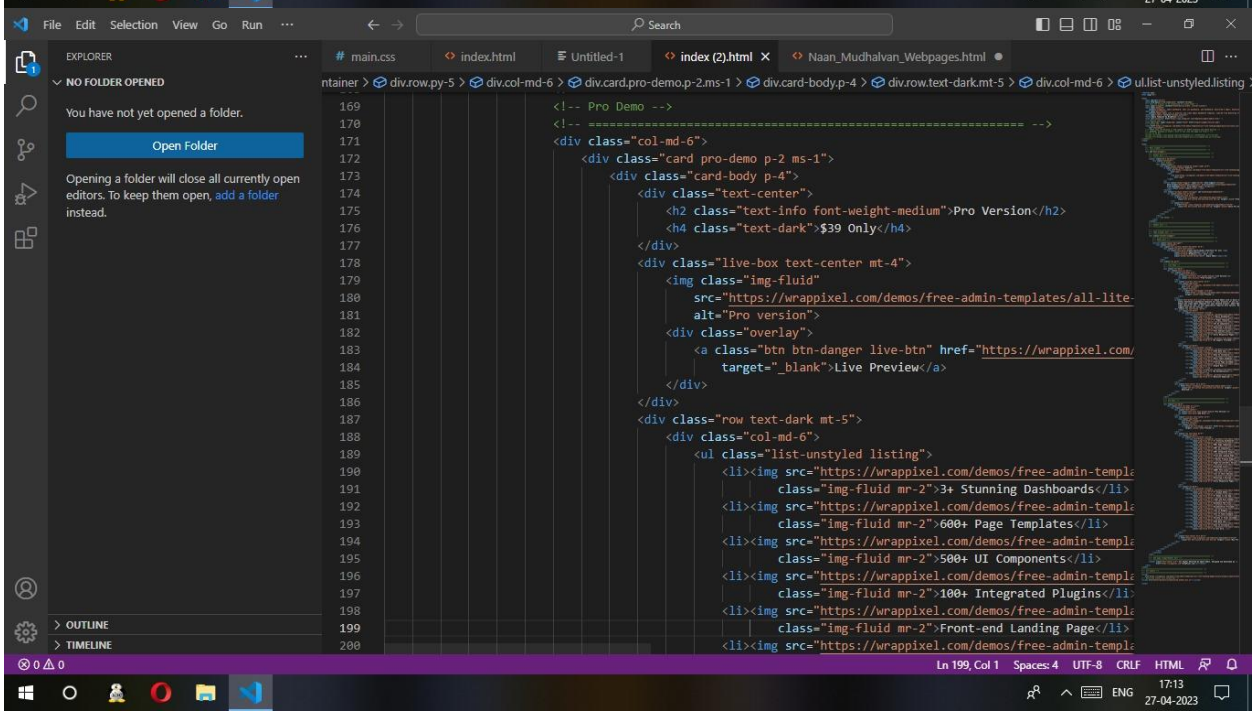
<h2 class="text-dark">Create Userfriendly Interface for your <span
class="fw-bold">Applications & <span
class="fw-bold">Products with <span
class="border-bottom border-dark"> Ample Admin</h2>

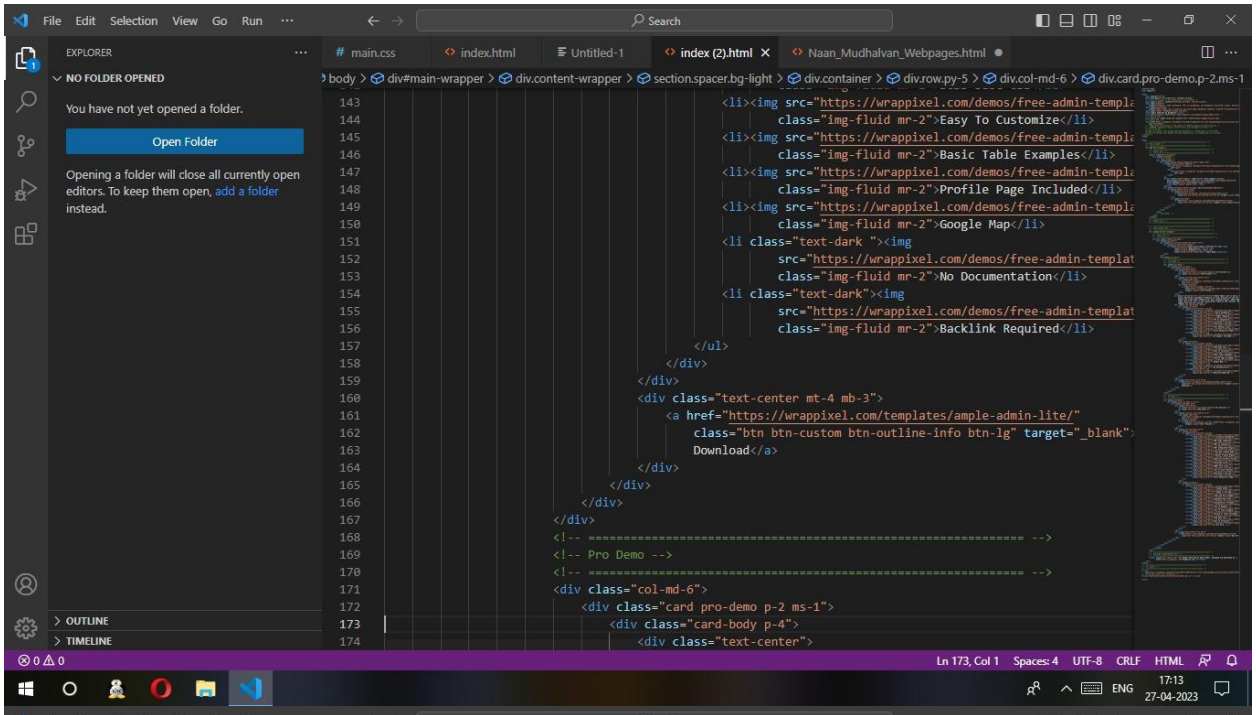
<!-- ========== -->
<!-- Lite Demo -->
<!-- ========== -->

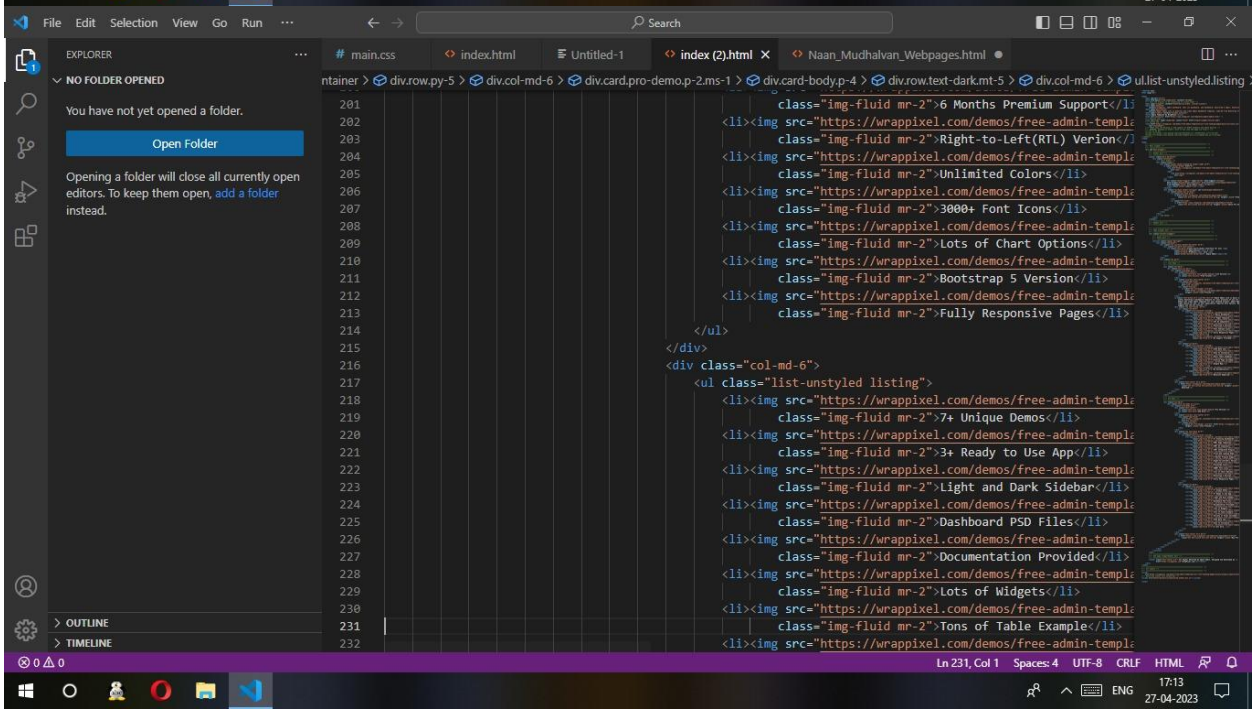
<h2 class="text-dark font-weight-medium">Lite Version</h2>
<h4 class="text-success">Free Forever</h4>

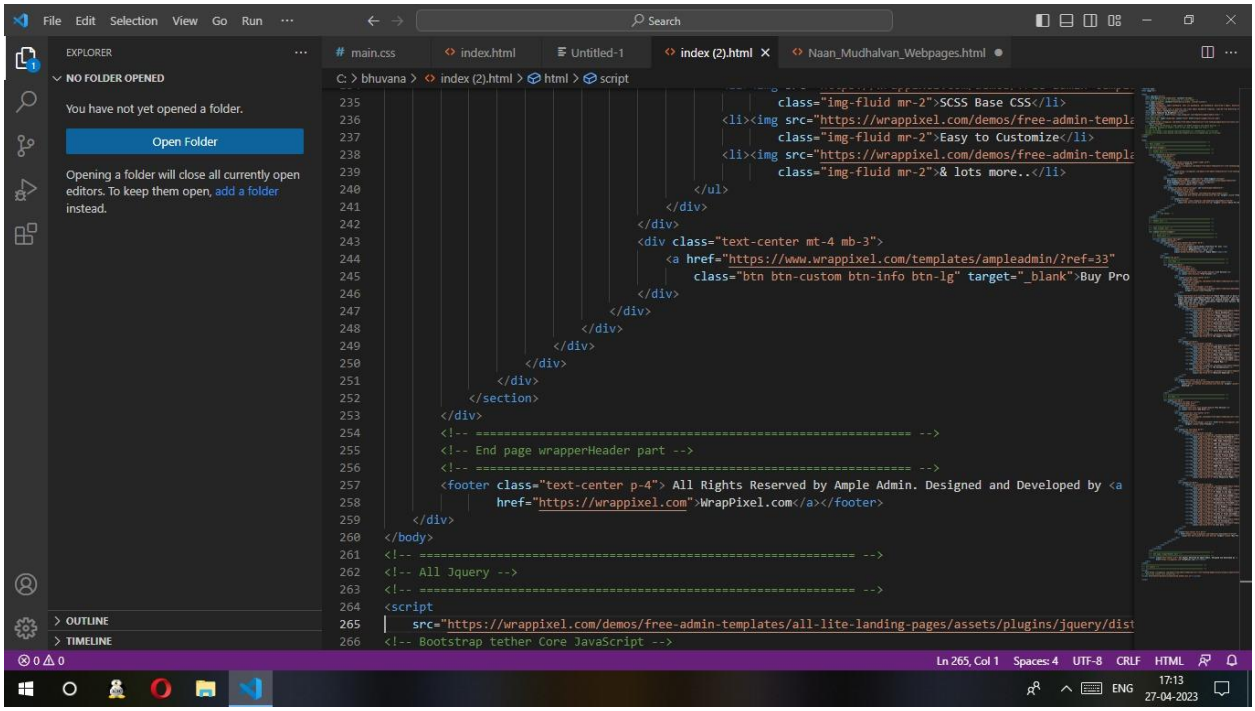
<img class="img-fluid"
OUTLINE
TIMELINE
Ln 104, Col 1 Spaces: 4 UTF-8 CRLF HTML
ENG
17:12
27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
OUTLINE
TIMELINE
Ln 134, Col 1 Spaces: 4 UTF-8 CRLF HTML
ENG 17:12 27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
OUTLINE
TIMELINE
Ln 199, Col 1 Spaces: 4 UTF-8 CRLF HTML
ENG 17:13 27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
OUTLINE
TIMELINE
Ln 173, Col 1 Spaces: 4 UTF-8 CRLF HTML
ENG 17:13 27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
OUTLINE
TIMELINE
Ln 231, Col 1 Spaces: 4 UTF-8 CRLF HTML
ENG 17:13 27-04-2023


File Edit Selection View Go Run
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Opening a folder will close all currently open editors. To keep them open, add a folder instead.
OUTLINE
TIMELINE
main.css
index.html
Untitled-1
index (2).html
Naan_Mudhalvan_Webpages.html
C: > bhuvana > index (2).html > html > script
class="img-fluid mr-2">SCSS Base CSS
<img src="https://wrappixel.com/demos/free-admin-templa
class="img-fluid mr-2">Easy to Customize
<img src="https://wrappixel.com/demos/free-admin-templa
class="img-fluid mr-2">& lots more..

<a href="https://www.wrappixel.com/templates/ampleadmin/?ref=33"
class="btn btn-custom btn-info btn-lg" target="_blank">Buy Pro

</section>

<!-- == -->
<!-- End page wrapperHeader part -->
<!-- == -->
<footer class="text-center p-4"> All Rights Reserved by Ample Admin. Designed and Developed by <a
href="https://wrappixel.com">WrapPixel.com</footer>

</body>
<!-- == -->
<!-- All Jquery -->
<!-- == -->
<script
src="https://wrappixel.com/demos/free-admin-templates/all-lite-landing-pages/assets/plugins/jquery/dist
<!-- Bootstrap tether Core JavaScript -->
Ln 265, Col 1
Spaces: 4
UTF-8
CRLF
HTML
ENG
17:13
27-04-2023