

1 INTRODUCTION

1.1 Overview

A brief description about your project

1.2 Purpose

The use of this project. What can be achieved using this.

2 Problem Definition & Design Thinking

2.1 Empathy Map

Paste the empathy map screenshot

2.2 Ideation & Brainstorming Map

Paste the Ideation & brainstorming map screenshot

3 RESULT

Final findings (Output) of the project along with screenshots.

4 ADVANTAGES & DISADVANTAGES

List of advantages and disadvantages of the proposed solution

5 APPLICATIONS

The areas where this solution can be applied

6 CONCLUSION

Conclusion summarizing the entire work and findings.

7 FUTURE SCOPE

Enhancements that can be made in the future.

8 APPENDIX

A.Source Code

Attach the code for the solution built.

INTRODUCTION

Overview

Population growth is determined by the net recruitment rate of individuals to the population. Population growth in a given generation is a linear combination of its initial size, birth, death, immigration, and emigration rates.

From 1960 to 2021 the population of India increased from 450.55 million to 1.41 billion people. This is a growth of 212.4 percent in 61 years. The highest increase in India was recorded in 1974 with 2.36 percent. The smallest increase in 2021 with 0.80 percent.

A population is defined as a group of individuals of the same species living and interbreeding within a given area. Members of a population often rely on the same resources, are subject to similar environmental constraints, and depend on the availability of other members to persist over time.

Effects of population growth

Population growth retards capital formation. As population increases, per capita available income declines. People are required to feed more children with the same income. It means more expenditure on consumption and a further fall in the already low savings and consequently in the level of investment.


1.2 Purpose

A youthful population presents an opportunity for accelerated economic growth on a per capita basis, if countries where the population is growing rapidly achieve a substantial and sustained decline in the fertility level, leading to an increased concentration of the population in the working-age range.

2 PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy Map

Template



Empathy map

Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

[Share template feedback](#)

Build empathy

The information you add here should be representative of the observations and research you've done about your users.

Says

What have we heard them say?
What can we imagine them saying?

The world population is projected to reach **8.5 billion in 2030**, and to **increase further to 9.7 billion in 2050 and 10.4 billion by 2100**. As with any type of projection, there is a degree of uncertainty surrounding these latest population projections.

The geometric increase method is also known as the **logarithmic growth method** or **exponential growth method**. In this method, the percentage increase in population from decade to decade is assumed to remain constant.

Thinks

What are their wants, needs, hopes, and dreams? What other thoughts might influence their behavior?

The selection of a method depends on many factors—the context of the forecast, the relevance and availability of historical data, the degree of accuracy desirable, the time period to be forecast, the cost/benefit (or value) of the forecast to the company, and the time available for making the analysis.

Arithmetic Progression
Geometric Progression, Iter, Barlett Method, Decreasing Rate of Growth method.

Give them a name and a portrait to empathize with your persona.

Due to overpopulation, India has faced several problems like: **unemployment, excessive dependency, insufficient income rate, insecurities, loss of jobs, development failures, and social problems.**

Population growth is the increase in the number of people in a population or dispersed group. Actual global human population growth amounts to around 83 million annually, or 1% per year. The global population has grown from 1 billion in 1800 to 7.8 billion in 2020.

The main job of the **amygdala** is to regulate emotions, such as fear and aggression. The amygdala is also involved in tying emotional meaning to our memories.


The American Psychological Association (APA) defines anxiety as "an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure."

Does

What behavior have we observed?
What can we imagine them doing?


Feels

What are their fears, frustrations, and anxieties? What other feelings might influence their behavior?

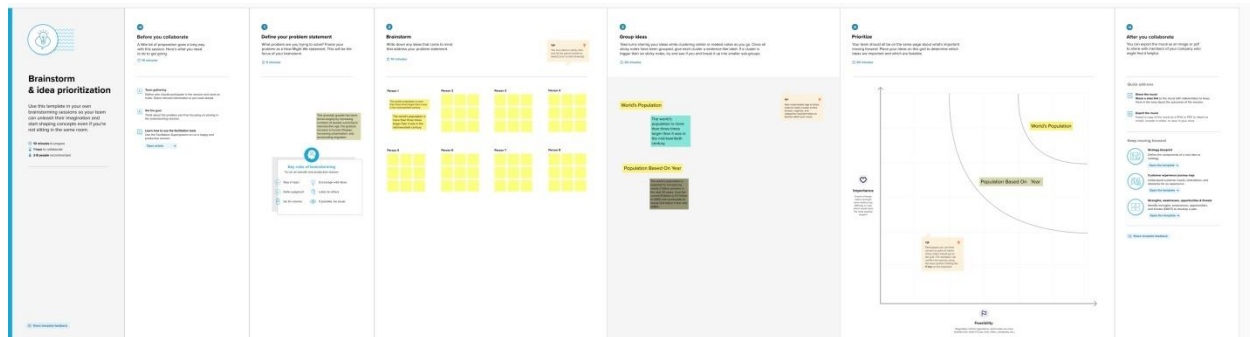


Need some inspiration?
See a finished version of this template to kickstart your work.

[Open example](#)



2.2 Ideation & Brainstroming Map



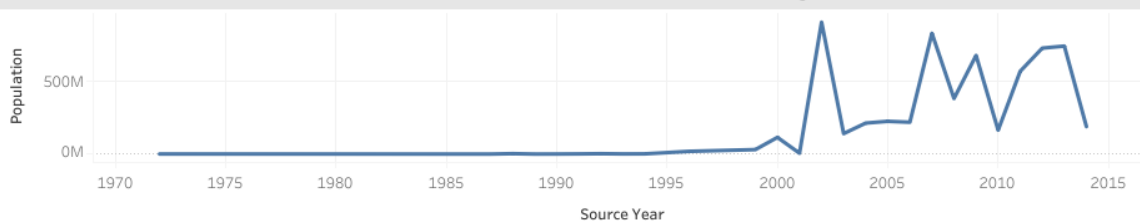
3 RESULT

Dashboard

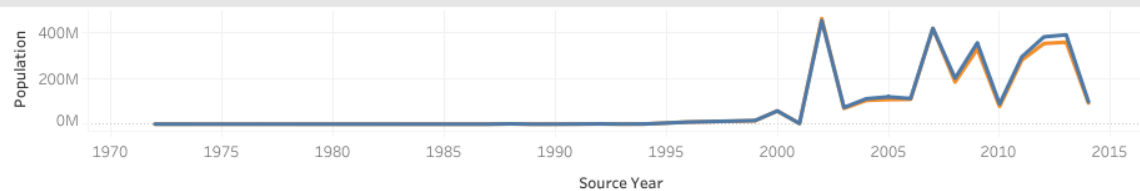
Population records by type of countries



Population trends over the years



Population trends over the years by sex



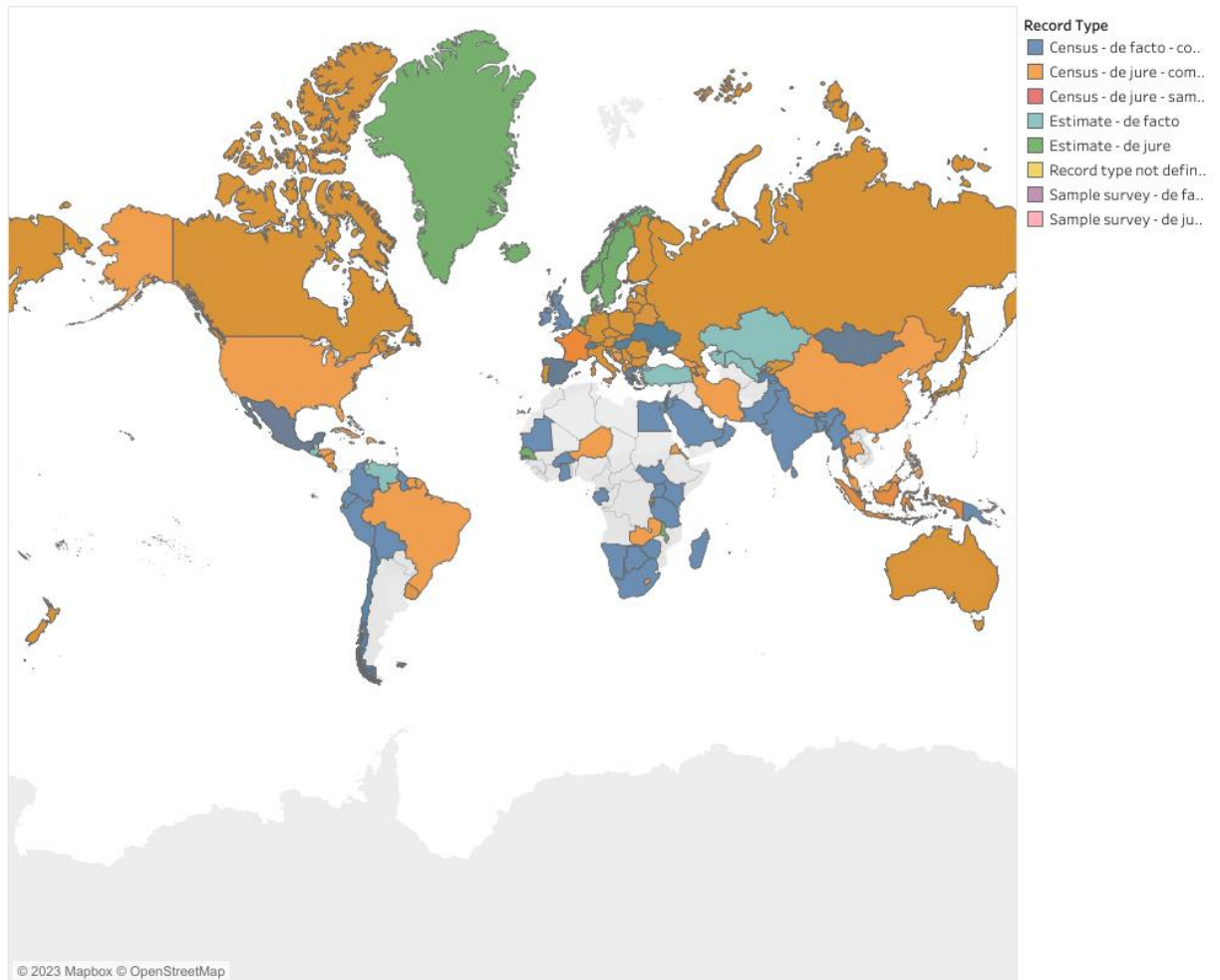
Story

Story 1

A proportional symbol map shows a marker positioned on a map.. This map shows the countries and their populatio..

A line chart connects plotted points against horizontal and vertical scales, then uses lines to join the points together..

A line chart connects plotted points against horizontal and vertical scales, then uses lines to j..



4 ADVANTAGES & DISADVANTAGES

ADVANTAGES

More people leads to greater human capital. If there are more people, the probability of finding a genius like Einstein, Marie Curie, Beethoven increase. These exceptional people can lead to technological and cultural masterpieces which enrich our lives.

The past 200 years have shown exponential growth in technical development and innovation. There are many factors behind this, but the world's

growing population means we have a bigger pool of human capital and the possibility of these cutting edge discoveries increase.

DISADVANTAGES

- Trying to reduce carbon and methane emissions to reduce global warming is relatively more difficult as the population.
- There will be greater threat on natural habitats as a greater population has greater demand for housing and farmland. This will increase pressure to cut down forests to make way for farming and housing.
- Higher population will lead to a greater consumption of non-renewable resources, leading to a faster depletion of natural resources.
- Higher population will lead to greater pollution levels in air, water and land. Higher pollution is associated with a range of health issues, such as cancer and asthma. The pollution also harms animals and plants.
- Soil degradation. To feed a growing planet, we have seen serious degrading of farmland (according to UN estimates) about 12 million hectares of farmland every year. This is due to factors, such as overgrazing, use of chemicals, climate change and use of chemicals.

5 APPLICATIONS

There are some applications associated with population growth, including, human evolution studies, the population growth is helped to study and observe the advancements in both anatomy and physiology. A growing population can be a result of many advantageous or beneficial traits or characteristics.

Population growth will lead to economic growth with more people able to produce more goods. It will lead to higher tax revenues which can be spent on public goods, such as health care and environmental projects

Population growth will lead to economic expansion since more people can produce more goods. More money will be available in tax revenue to fund public services like environmental and health care programs.

6 CONCLUSION

The Earth's current population is almost 7.6 billion people, and it is expanding. It is expected to surpass 8 billion people by 2025, 9 billion by 2040, and 11 billion by 2100. The population is quickly increasing, far surpassing our planet's ability to maintain it, given existing habits.

7 FUTURE SCOPE

A quantitative study of human distribution in a particular area or space.
Variation in population density due to environmental or geographical condition.
The demographic phenomenon like mortality, growth rate, birth rate, etc.

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.

The United Nations estimates that future world population growth may vary from 6 billion (a decrease) to 16 billion people by the year 2100

Population studies is broadly defined as the scientific study of human populations. Major areas studied include broad population dynamics; fertility and family dynamics; health, aging, and mortality; and human capital and labor markets. Researchers in population studies also focus on methodology.

8 APPENDIX

A Source code

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="utf-8">
```

```
<meta content="width=device-width, initial-scale=1.0" name="viewport">
```


<title>A Population Forecasting Analysis Bootstrap Template - Index</title>

<meta content="" name="description">

<meta content="" name="keywords">

<!-- Favicons -->

<link href="assets/img/favicon.png" rel="icon">

<link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">

<!-- Google Fonts -->

<link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Playfair+Display:ital,wght@0,400;0,500;0,600;0,700;1,400;1,500;1,600;1,700|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i"
rel="stylesheet">

<!-- Vendor CSS Files -->

<link href="assets/vendor/animate.css/animate.min.css" rel="stylesheet">

<link href="assets/vendor/aos/aos.css" rel="stylesheet">

<link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<link href="assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">

<link href="assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">

<link href="assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">

<link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

<!-- Template Main CSS File -->

<link href="assets/css/style.css" rel="stylesheet">

<!-- =====

* Template Name: A Population Forecasting Analysis

* Updated: Mar 10 2023 with Bootstrap v5.2.3

* Template URL: <https://bootstrapmade.com/restaurantly-restaurant-template/>

* Author: BootstrapMade.com

* License: <https://bootstrapmade.com/license/>

===== --

>

</head>

<body>

<!-- ===== Top Bar ===== -->

<div id="topbar" class="d-flex align-items-center fixed-top">

<div class="container d-flex justify-content-center justify-content-md-between">

<div class="contact-info d-flex align-items-center">

<i class="bi bi-phone d-flex align-items-center">+1 5589 55488
55</i>

<i class="bi bi-clock d-flex align-items-center ms-4"> Mon-Sat:
11AM - 23PM</i>

</div>

<div class="languages d-none d-md-flex align-items-center">

En

De

</div>

</div>

</div>

<!-- ===== Header ===== -->

<header id="header" class="fixed-top d-flex align-items-cente">

<div class="container-fluid container-xl d-flex align-items-center justify-
content-lg-between">

<h1 class="logo me-auto me-lg-0">A Population
Forecasting Analysis</h1>

<!-- Uncomment below if you prefer to use an image logo -->

<!-- -->

```
<nav id="navbar" class="navbar order-last order-lg-0">
  <ul>
    <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
    <li><a class="nav-link scrollto" href="#about">About</a></li>
    <li><a class="nav-link scrollto" href="#analysis dashboard">Analysis
Dashboard</a></li>
    <li><a class="nav-link scrollto" href="#analysis story">Analysis
Story</a></li>
  </ul></nav><!-- End Header -->
```

```
<!-- ===== Hero Section ===== -->
<section id="hero" class="d-flex align-items-center">
  <div class="container position-relative text-center text-lg-start" data-
aos="zoom-in" data-aos-delay="100">
    <div class="row">
      <div class="col-lg-8">
        <h1><span>A Population Forecasting Analysis</span></h1>

      </div>

    </div>

  </div>

</div>

</div>
```

</div>

</section><!-- End Hero -->

<main id="main">

<!-- ===== About Section ===== -->

<section id="about" class="about">

<div class="container" data-aos="fade-up">

<div class="row">

<div class="col-lg-6 order-1 order-lg-2" data-aos="zoom-in" data-aos-delay="100">

<div class="about-img">

</div>

</div>

<div class="col-lg-6 pt-4 pt-lg-0 order-2 order-lg-1 content">

<h3>Population Forecasting .</h3>

<p class="fst-italic">

Design of water supply and sanitation scheme is based on the projected population of a particular city, estimated for the design period. Any underestimated value will make system inadequate for the purpose intended; similarly overestimated value will make it costly. Changes in the population of the city over the years occur, and the system should be designed taking into account of the population at the end of the design period.

</p>

Factors affecting changes in population are:

<i class="bi bi-check-circle"></i> increase due to annexation.

<i class="bi bi-check-circle"></i> increase due to births.

<i class="bi bi-check-circle"></i> decrease due to deaths velit.

<i class="bi bi-check-circle"></i> increase/decrease due to migrationr.

</div>

</div>

</div>

</section><!-- End About Section -->

</section><!-- End Gallery Section -->

<!-- ===== Chefs Section ===== -->

<section id="chefs" class="chefs">

<div class="container" data-aos="fade-up">

<div class="section-title">

<center><p>Analysis Dashboard</p></center>

```
<div class='tableauPlaceholder' id='viz1680962772965' style='position:
relative'><noscript><a href='#'><img alt='Dashboard 1 '
src='https://public.tableau.com/static/images/Da#47;
Dashboard_16801880869910#47;Dashboard1#47;1_rss.png' style='border:
none' /></a></noscript><object class='tableauViz' style='display:none;'><param
name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param
name='embed_code_version' value='3' /> <param name='site_root' value='
' /><param name='name' value='Dashboard_16801880869910#47;Dashboard1'
/><param name='tabs' value='no' /><param name='toolbar' value='yes' /><param
name='static_image'
value='https://public.tableau.com/static/images/Da#47;
Dashboard_16801880869910#47;Dashboard1#47;1.png' /> <param
name='animate_transition' value='yes' /><param name='display_static_image'
value='yes' /><param name='display_spinner' value='yes' /><param
name='display_overlay' value='yes' /><param name='display_count' value='yes'
/><param name='language' value='en-US' /></object></div>      <script
type='text/javascript'>          var divElement =
document.getElementById('viz1680962772965');          var vizElement =
divElement.getElementsByTagName('object')[0];          if (
divElement.offsetWidth > 800 ) {
vizElement.style.width='1000px';vizElement.style.height='827px';} else if (
divElement.offsetWidth > 500 ) {
vizElement.style.width='1000px';vizElement.style.height='827px';} else {
vizElement.style.width='100%';vizElement.style.height='827px';}          var
scriptElement = document.createElement('script');          scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
vizElement.parentNode.insertBefore(scriptElement, vizElement);
</script>
```

<center><p>Analysis Story</p></center>

```
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relative'><noscript><a href='#'><img alt='Story 1 '
src='https://public.tableau.com/static/images/St&#47;S
tory_16801878234720&#47;Story1&#47;1_rss.png' style='border: none'
/></a></noscript><object class='tableauViz' style='display:none;'><param
name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param
name='embed_code_version' value='3' /> <param name='site_root' value='
' /><param name='name' value='Story_16801878234720&#47;Story1' /><param
name='tabs' value='no' /><param name='toolbar' value='yes' /><param
name='static_image'
value='https://public.tableau.com/static/images/St&#4
7;Story_16801878234720&#47;Story1&#47;1.png' /> <param
name='animate_transition' value='yes' /><param name='display_static_image'
value='yes' /><param name='display_spinner' value='yes' /><param
name='display_overlay' value='yes' /><param name='display_count' value='yes'
/><param name='language' value='en-US' /></object></div>      <script
type='text/javascript'>      var divElement =
document.getElementById('viz1680962910955');      var vizElement =
divElement.getElementsByTagName('object')[0];
vizElement.style.width='1016px';vizElement.style.height='991px';      var
scriptElement = document.createElement('script');      scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
vizElement.parentNode.insertBefore(scriptElement, vizElement);
</script>
```

</div>

</main><!-- End #main -->


```
<div id="preloader"></div>
```

```
<a href="#" class="back-to-top d-flex align-items-center justify-content-center"><i class="bi bi-arrow-up-short"></i></a>
```

```
<!-- Vendor JS Files -->
```

```
<script src="assets/vendor/aos/aos.js"></script>
```

```
<script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
```

```
<script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
```

```
<script src="assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>
```

```
<script src="assets/vendor/swiper/swiper-bundle.min.js"></script>
```

```
<script src="assets/vendor/php-email-form/validate.js"></script>
```

```
<!-- Template Main JS File -->
```

```
<script src="assets/js/main.js"></script>
```

```
</body>
```

```
</html>
```