Regression Analysis

Do You able to Answer?

- Is there a relationship between salt intake and blood pressure?

- Is there a relationship between cigarette smoking and life expectancy?

Category	Description
I	those who understand statistical presentations
II	those who understand, select, and apply statistical procedures
III	applied statisticians who help others use statistics
IV	mathematical statisticians who are skilful in complicating & confusing others

Levels of Statistical Sophistication

Basic Concepts

REGRESSION

Regression analysis is a statistical technique used to describe relationships among variables

The simplest case to examine is one in which a variable Y , referred to as the dependent or target variable, may be related to one variable X, called an independent or explanatory variable, or simply a regressor

$$Y = \beta_1 + \beta_2 X$$

where β_1 is an intercept term and β_2 is a slope coefficient.

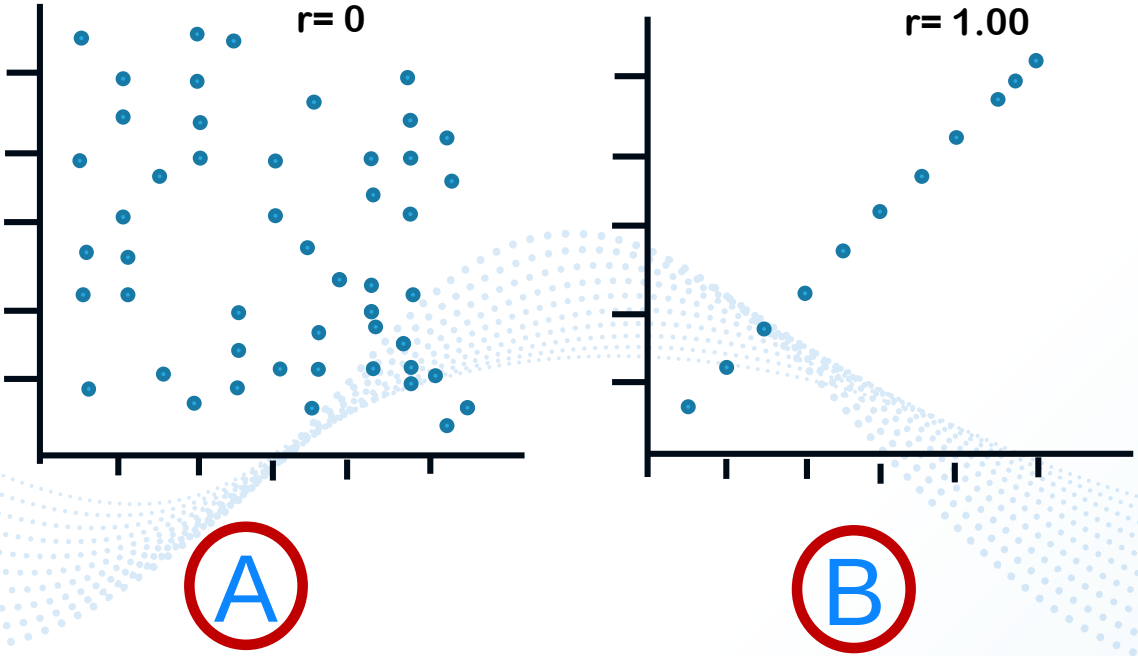
Outline

- Basic Concepts
- Situations where Models are Used
- How to Use EXCEL
- Types of Regression

Basic Concepts

- **Variables: Response Vs Explanatory**
- Functional relationship
- **Objective: Predict the Response**

- **Variables: Same**
- Establish and quantify Relationship strength and direction
- **Objective: Association**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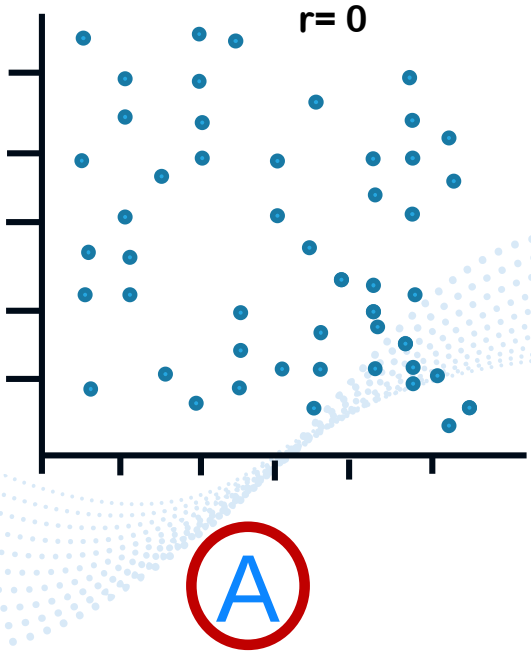
B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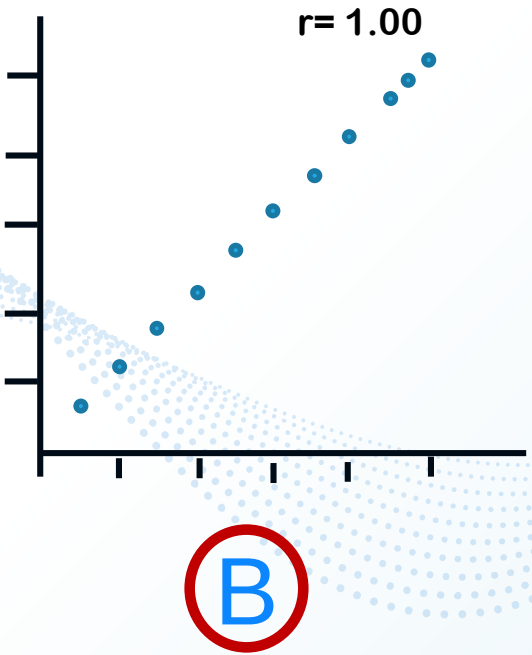
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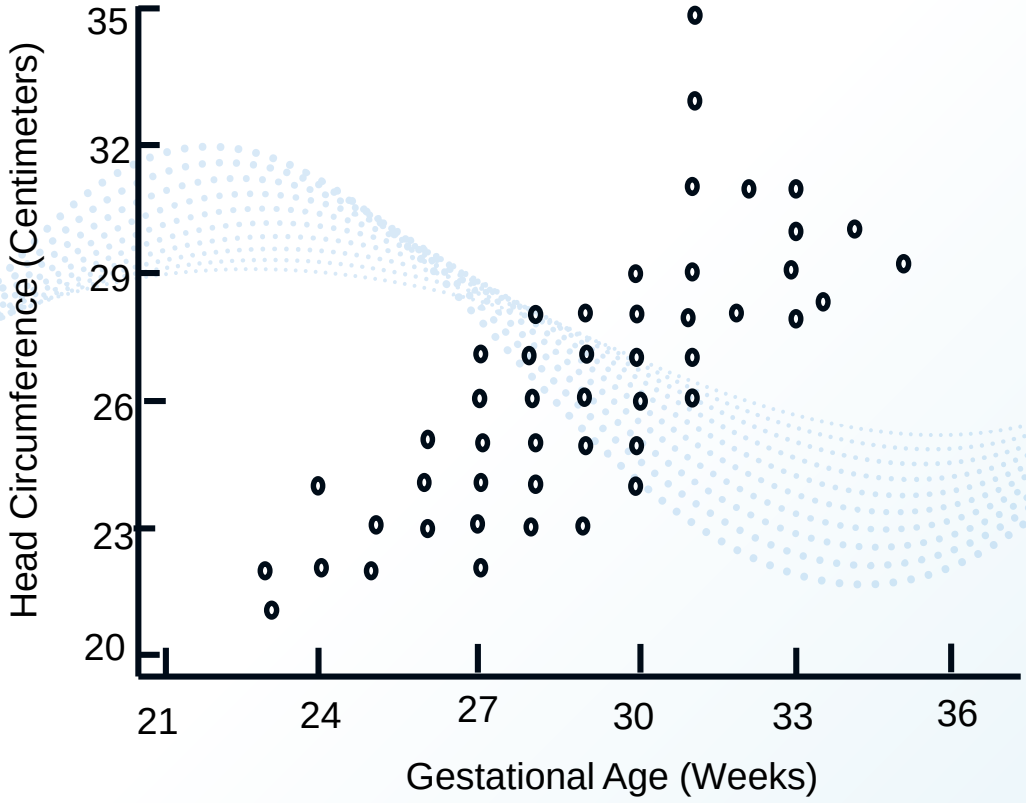
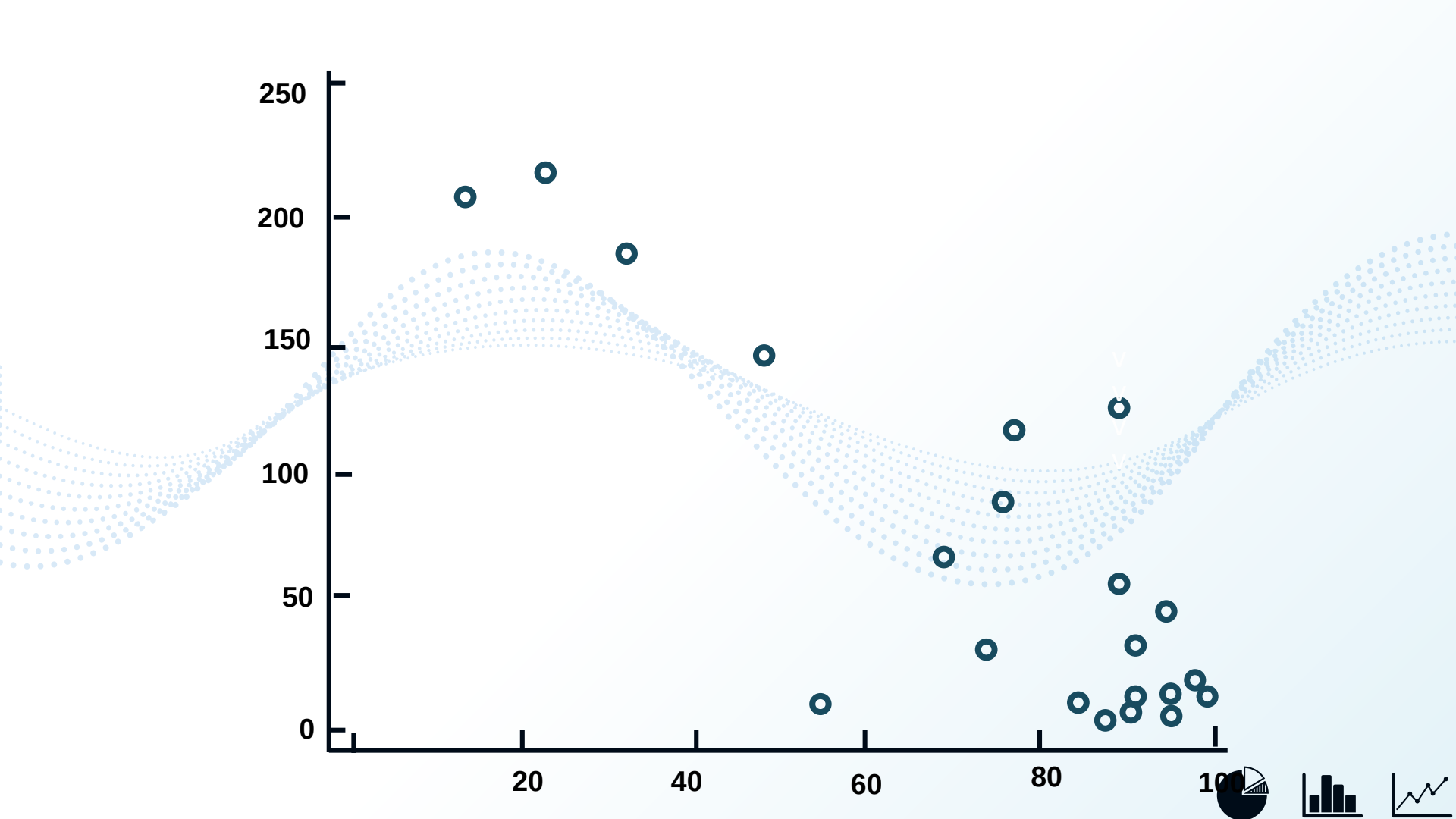
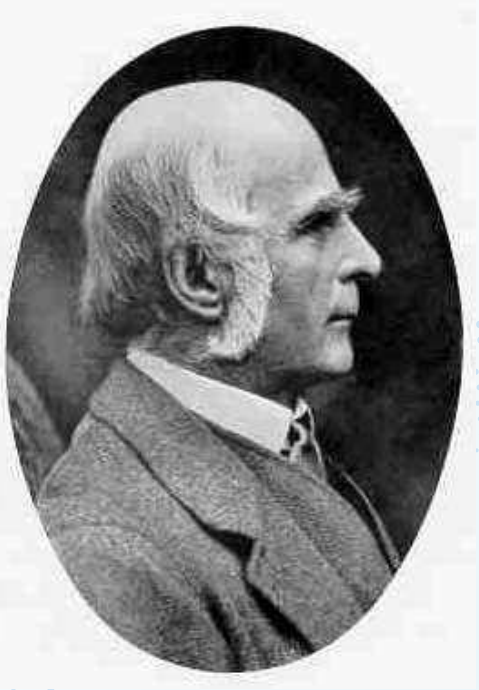

Head Circumference (Centimeters)
35
32
29
26
23
20
21
24
27
30
33
36
Gestational Age (Weeks)


250
200
150
100
50
0
20
40
60
80
100

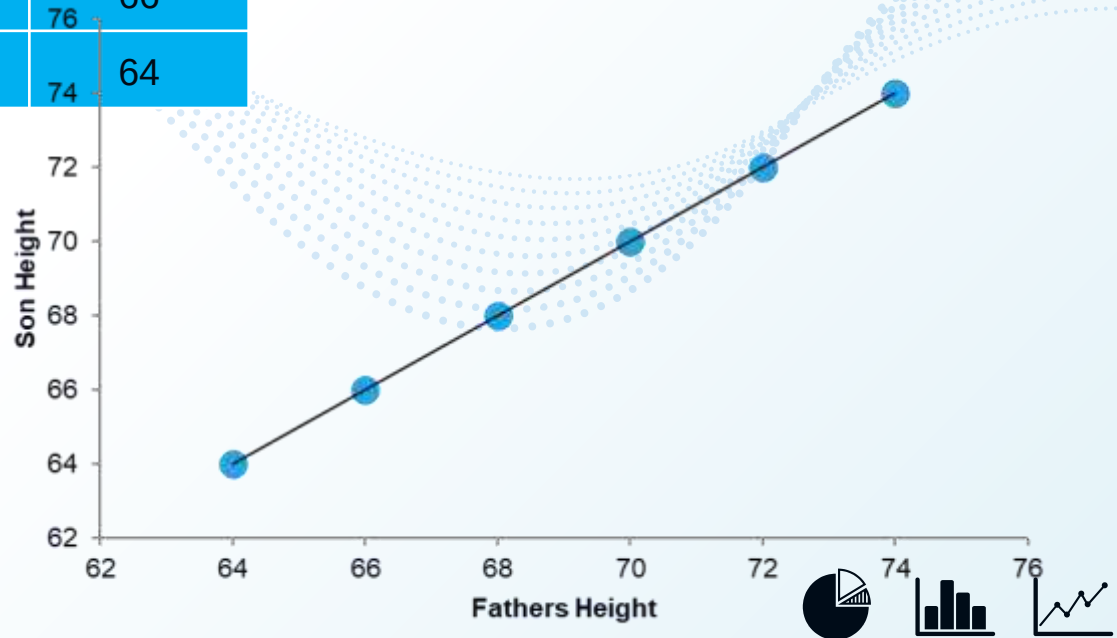
Correlation



Statistical technique that describes the degree of relationship between two variables

Sir Francis Galton

Father	Height(in)	Son	Height(in)
Mr Patil	74	Patil Jr	74
Mr Jogdand	72	Jogdand Jr	72
Mr Nanaware	70	Nanaware Jr	70
Mr Raikar	68	Raikar Jr	68
Mr Navle	66	Navle Jr	66
Mr Despande	64	Deshpande Jr	64



1.Transition Headline

Let’s start with the first set of slides

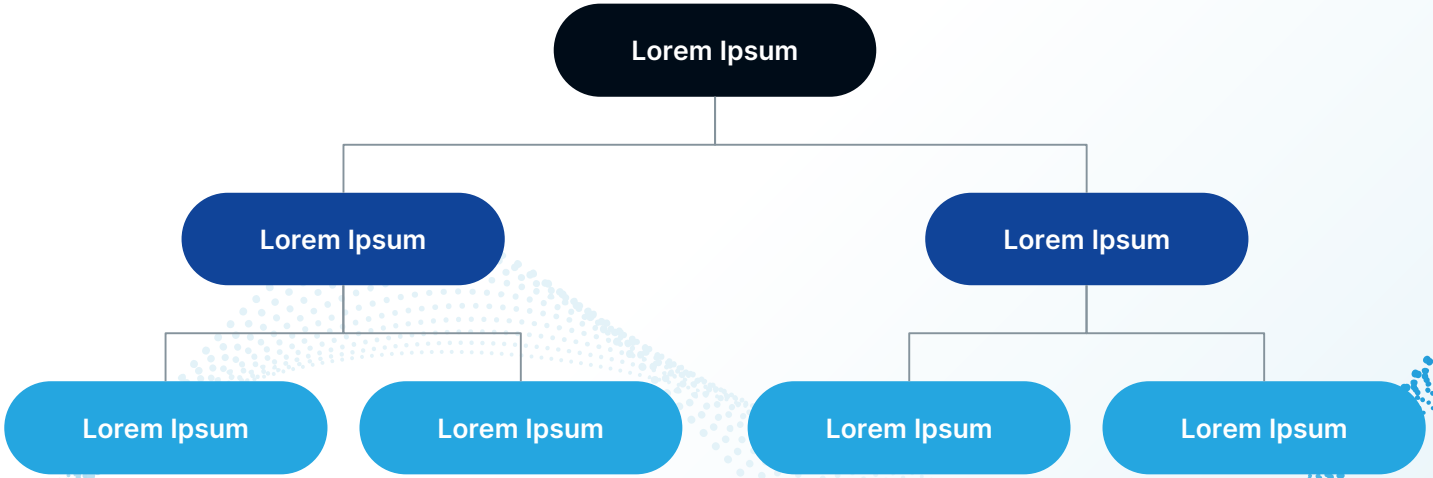
“

Quotations are commonly printed as a means of inspiration and to invoke philosophical thoughts from the reader.

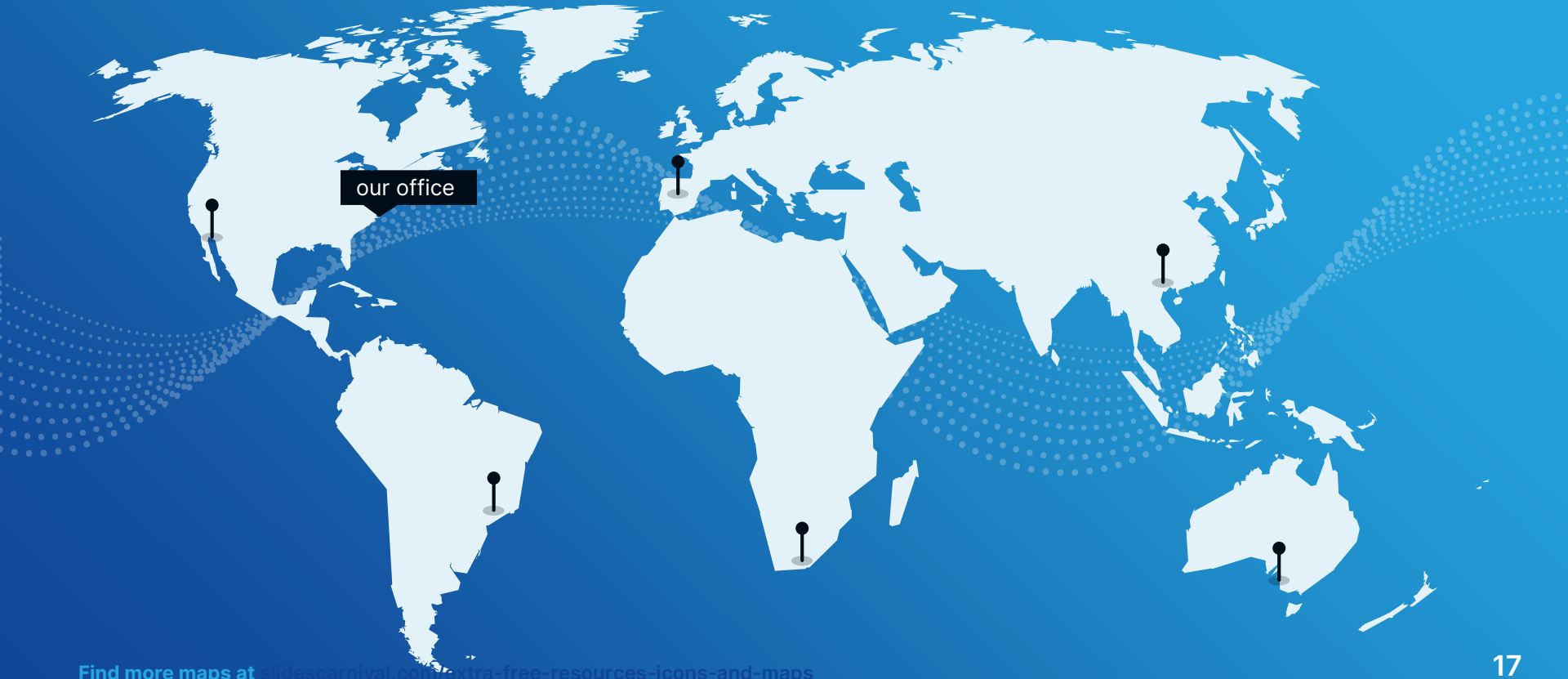
Big concept

Bring the attention of your audience over a key concept using icons or illustrations

Use diagrams to explain your ideas



Maps



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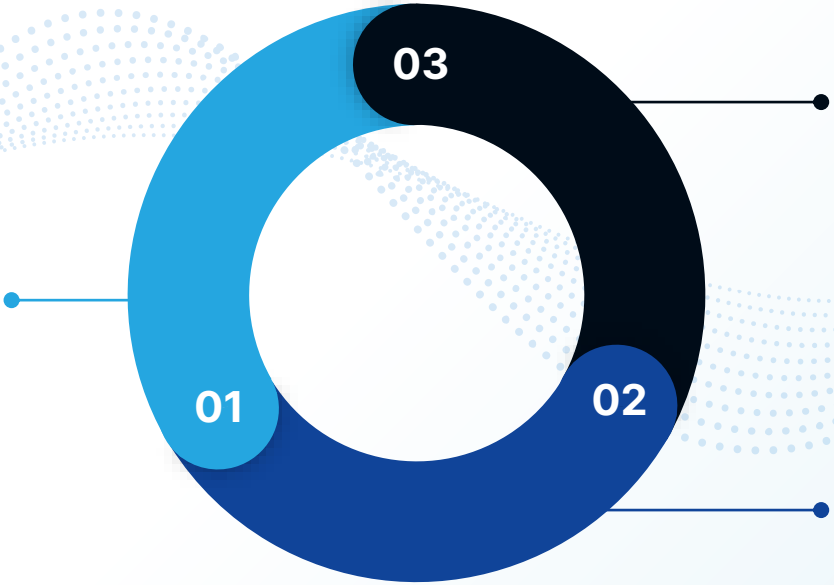
Our process is easy



Vestibulum congue tempus

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Vestibulum congue tempus

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor. Donec facilisis lacus eget mauris.

Vestibulum congue tempus

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor. Donec facilisis lacus eget mauris.

Thanks!

Any questions?

You can find me at

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- user@mail.me

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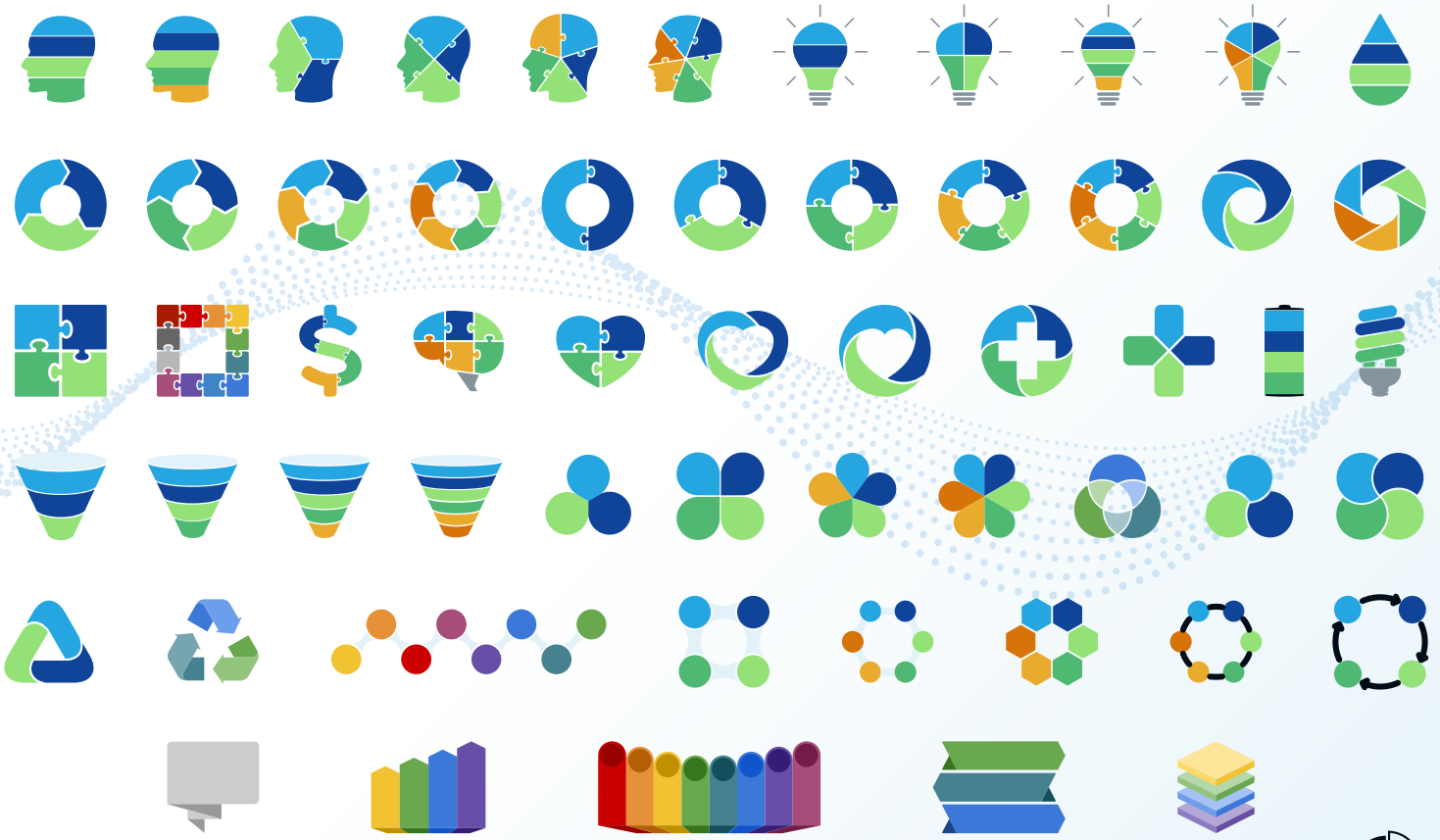
Diagrams and infographics



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