Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur (Autonomous)
PG Department of Microbiology

PPT Bank (2022-2023)

Index

Sr. No.	Name Of Topic	Class	Course
1.	Introduction To Research Methodology	Msc-I	RMD20MIC11 Research Methodology
2.	Referencing And Citation Tools	Msc-I	RMD20MIC11 Research Methodology
3.	Collection And Presentation Of Data	Msc-II	CC2412 Biostatistics, Bioinformatics And Scientific Writing

Paper Name-
RESEARCH METHODOLOGY

Topic Name-

INTRODUCTION TO RESEARCH METHODOLOGY

Presented by,
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INTRODUCTION TO RESEARCH METHODOLOGY

- ***CONTENTS-***

❖ What is research
❖ Objectives of research
❖ Motivation of research
❖ Types of research

•***WHAT IS RESEARCH?***

•A scientific and systematic search for pertinent information on a specific topic.

•In fact, research is an art of scientific investigation. The Advanced Learner's Dictionary of Current English lays down the meaning of research as,

"a careful investigation or inquiry specially through search for new facts in any branch of knowledge."

- Redman and Mory define research as a “systematized effort to gain new knowledge.”

- Some people consider research as a movement, a movement from the known to the unknown.

•***OBJECTIVES OF RESEARCH***

1. To gain familiarity with a phenomenon or to achieve new insights into it
   (studies with this object in view are termed as *exploratory or formulative research studies);*

2. To portray accurately the characteristics of a particular , individual, situation or a group
   (studies with this object in view are known as *descriptive research studies);*

3. To determine the frequency with which something occurs or with which it is associated with something else (studies with this object in view are known as *diagnostic research* studies)

4. To test a hypothesis of a causal relationship between variables
(such studies are known as *hypothesis-testing research studies).*

- ***MOTIVATION IN RESEARCH***

1. Desire to get a research degree along with its consequential benefits

2. Desire to face the challenge in solving the unsolved problems, i.e., concern over practical problems initiates research;

3. Desire to get intellectual joy of doing some creative work

4. Desire to be of service to society;

5. Desire to get respectability

- ***Types of Research***

1. Descriptive vs. Analytical
2. Applied vs. Fundamental
3. Quantitative vs. Qualitative
4. Conceptual vs. Empirical
5. Some Other Types of Research

THANK YOU!

Paper Name-

RESEARCH METHODOLOGY

Topic Name-

Referencing and citation tools

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Referencing and citation tools:

- **Contents-**

❖Introduction
❖ Why reference need
❖ Mendeley- Features and Functions
❖ Zotero
❖ Jabref- Features and Functions
❖ Conclusion

Introduction

- Reference Management software program that simplify the process of reference management by allowing the user to collect, store, and organize references
- Insert citations at the appropriate place in the body of the manuscript, and generate a list of the references in an appropriate format of bibliographic styles.

Why Reference need

- Organize and tag citations & documents
- Create instant bibliographies in standard formats.
- Create personal citation database of articles on your topics.
- Format papers with in-text citations and bibliographies in standard formats.
- Share your database of citations/articles with others.

Why Reference need?

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Mendeley

- Mendeley is a free, award-winning, desktop and web program for managing and sharing research papers, discovering research data and collaborating online available for Windows, Mac, and Linux.

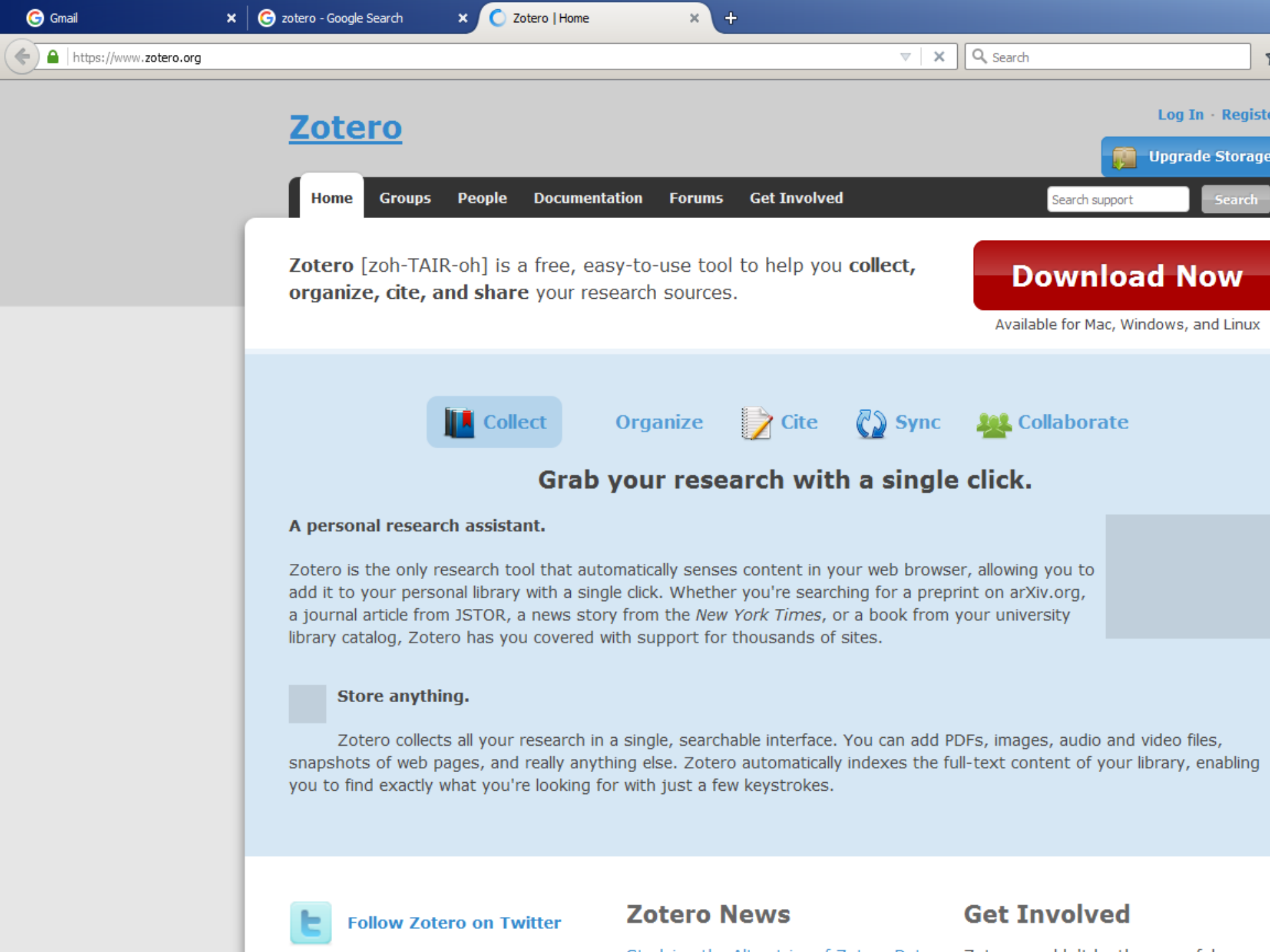
- http://www.mendeley.com/

Features

- Quick and simple installation
- Word Plugin
- Citation styles for +1000 journals
- Create bibliographies instantly
- Flexible formatting
- Collaborate on bibliographies
- Share bibliographies
- Annotate and highlight
- Add and Organize
- Backup, Sync and Mobile
- Network and Discover

Functions/Needs of Mendeley

- Create-your-bibliography-database
- Capture-citations-from-everywhere
- Build-your-network-of-researchers
- Collaborate-share-discover
- Research-papers-statistics
- Annotate-PDFs
- Create-Bibliographies
- Sync-from-Zotero and others


Gmail
zotero - Google Search
Zotero | Home
https://www.zotero.org
Search
Zotero
Log In · Regist
Upgrade Storage
Home
Groups
People
Documentation
Forums
Get Involved
Search support
Search
Zotero [zoh-TAIR-oh] is a free, easy-to-use tool to help you collect, organize, cite, and share your research sources.
Download Now
Available for Mac, Windows, and Linux
Collect
Organize
Cite
Sync
Collaborate
Grab your research with a single click.
A personal research assistant.
Zotero is the only research tool that automatically senses content in your web browser, allowing you to add it to your personal library with a single click. Whether you're searching for a preprint on arXiv.org, a journal article from JSTOR, a news story from the New York Times, or a book from your university library catalog, Zotero has you covered with support for thousands of sites.
Store anything.
Zotero collects all your research in a single, searchable interface. You can add PDFs, images, audio and video files, snapshots of web pages, and really anything else. Zotero automatically indexes the full-text content of your library, enabling you to find exactly what you're looking for with just a few keystrokes.
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Fork me on GitHub

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News

November 29th, 2015
Version 3.0

November 16th, 2015
Version 2.11.1

November 11th, 2015
Version 2.11

September 10th, 2015
Version 2.11 beta 4

June 21th, 2015
Version 2.11 beta 3

May 19th, 2015
Version 2.11 beta 2

May 17th, 2015

JabRef

- JabRef is an open source bibliography reference manager. The native file format used by JabRef is BibTeX, the standard LaTeX bibliography format. JabRef runs on the Java VM (version 1.8 or newer), and works equally well on Windows, Linux, and Mac OS X.

- BibTeX is an application and a bibliography file format written by Oren Patashnik and Leslie Lamport for the LaTeX document preparation system. General information can be found on the CTAN BibTeX package information page. JabRef also supports Bib Latex.
- Bibliographies generated by LaTeX and BibTeX from a BibTeX file can be formatted to suit any reference list specifications through the use of different BibTeX and BibLaTeX style files.

JabRef Features

- **Search the Web**
  - Entries can be searched in external databases and BibTeX entries can be fetched from there. Example sources: arXiv, CiteseerX, Google Scholar, Medline, GVK, IEEEXplore, and Springer
- **Import of various formats**
  - RIS, Medline/Pubmed (xml), Refer/Endnote, INSPEC, BibTeXML, CSA, ISI Web of Science, SilverPlatter, Scifinder, OVID, Biblioscape, Sixpack, JStor, and RIS.

Automatic download of full texts

- JabRef can be instructed to search for the full text of a reference, download it, and directly link it to the BibTeX entry.

- **Search the bibliography**
  - Search a pattern in the whole bibliography.
- **Classification of entries**
  - You can group entries explicitly, by keywords or any other fields.
- **Integrates to your environment**
  - Launch external applications: PDF viewers, web browser
  - Insert citations into TeXstudio, LyX, Kile etc.

Conclusion

- The influence of information technology the research scholars are over loaded with information and this lead in to the problems of identifying, collecting and storing of scholarly communications for their research.

- Hence research scholars are needed the Reference Management software to solve their problems and to handle the downloaded articles from internet, online databases, online e-journals & e-books etc.

- Reference management software helps to complete the research in organized way and even it helps the other researchers to know the related literature for their future research.

THANK YOU

Paper Name

BIOSTATISTICS, BIOINFORMATICS AND SCIENTIFIC WRITING

Topic Name-

Collection and Presentation of Data

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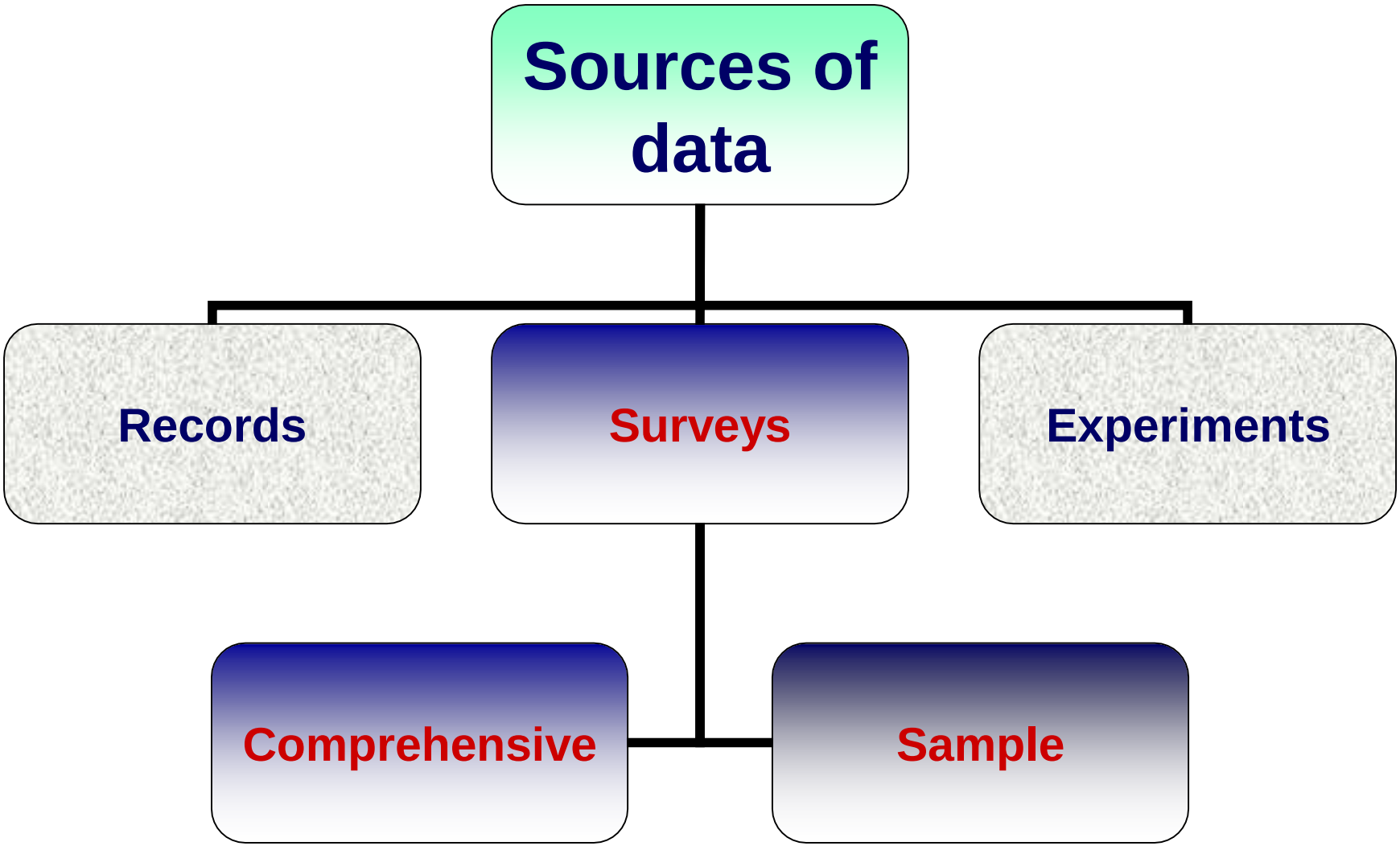
BIOSTATISTICS-

It is the science which deals with development and application of the most appropriate methods for the:

- Collection of data.
- Presentation of the collected data.
- Analysis and interpretation of the results.
- Making decisions on the basis of such analysis


Sources of data
Records
Surveys
Experiments
Comprehensive
Sample

- Methods of Data Presentation-

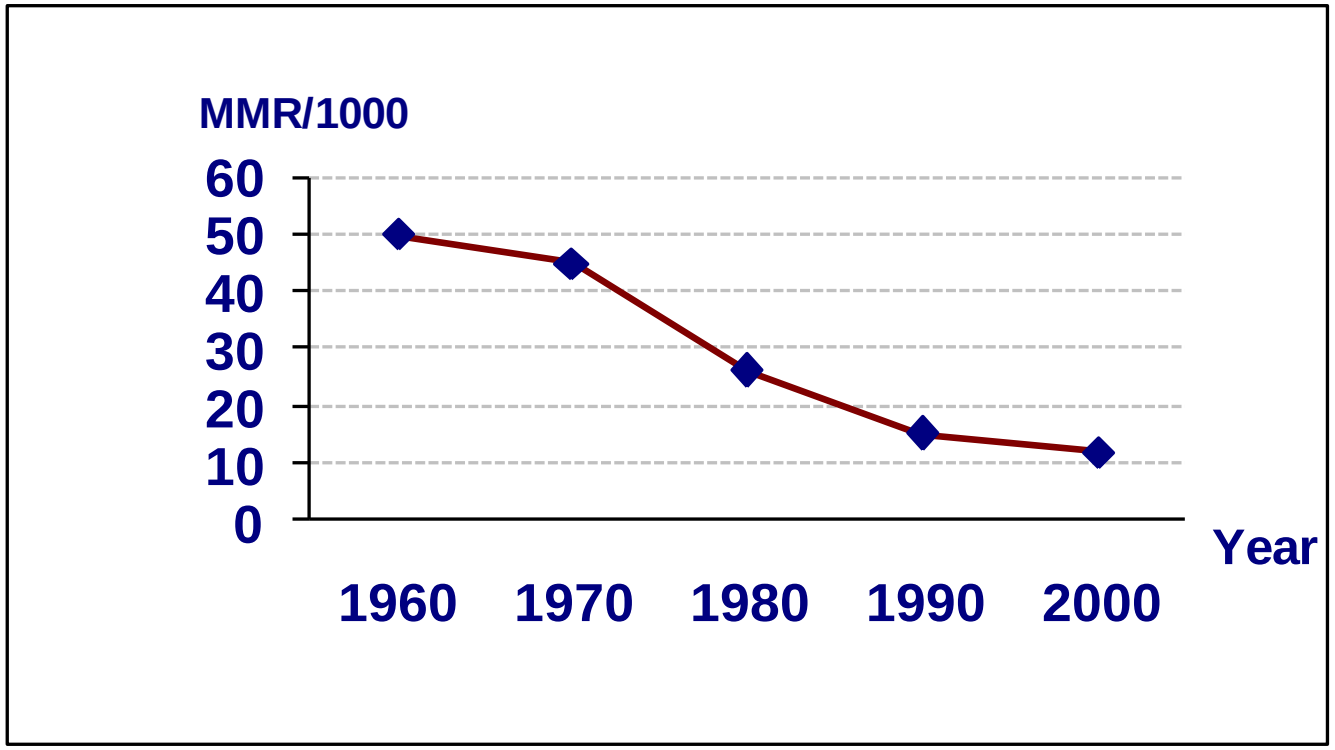
1. Tabular presentation
2. Textual presentation
3. Graphical presentation

Graphical Presentation of data-

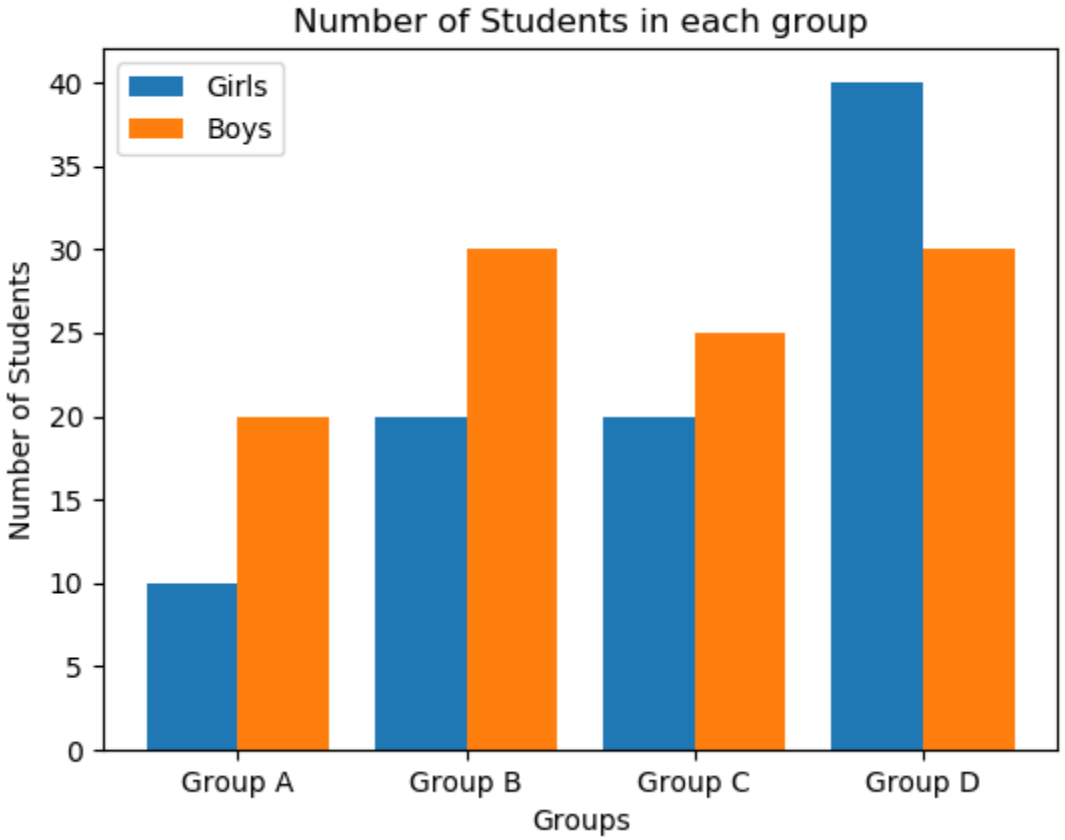
1. Line diagram
2. Bar diagram
3. Pie chart
4. Histogram
5. Frequency Polygon
6. Pictogram

Graphical Presentation of Data-

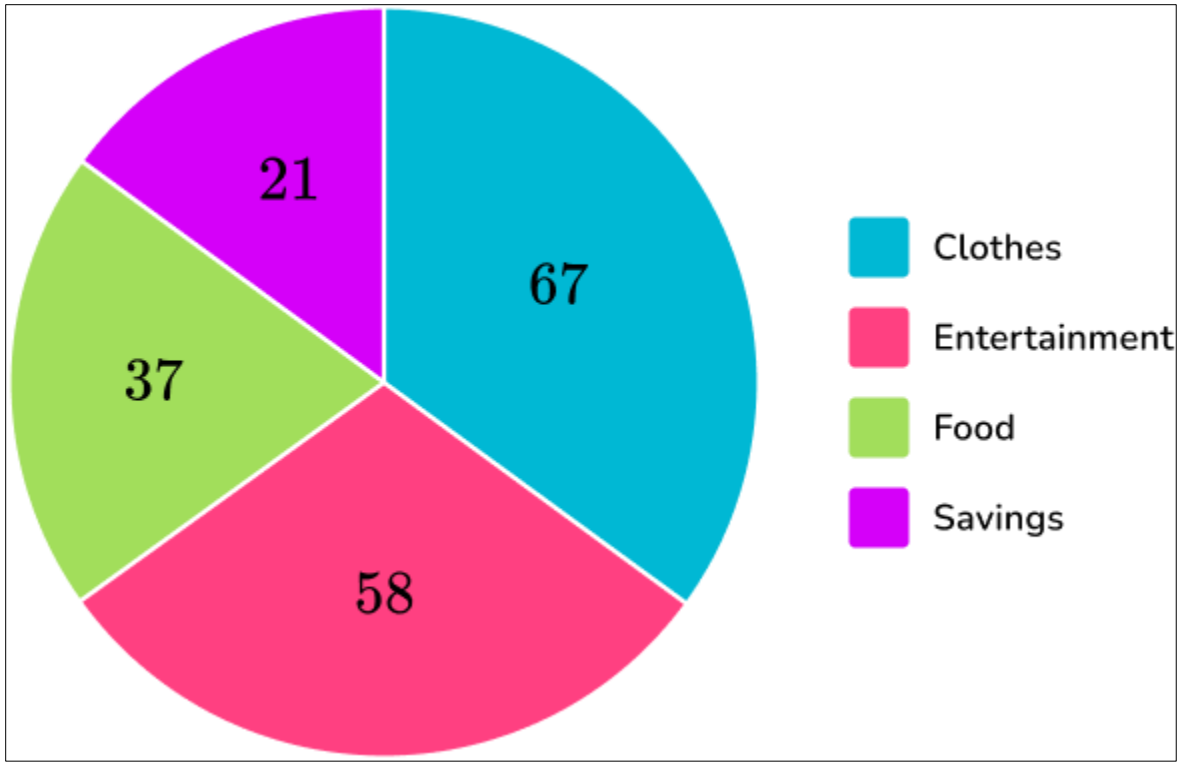
Line Diagram



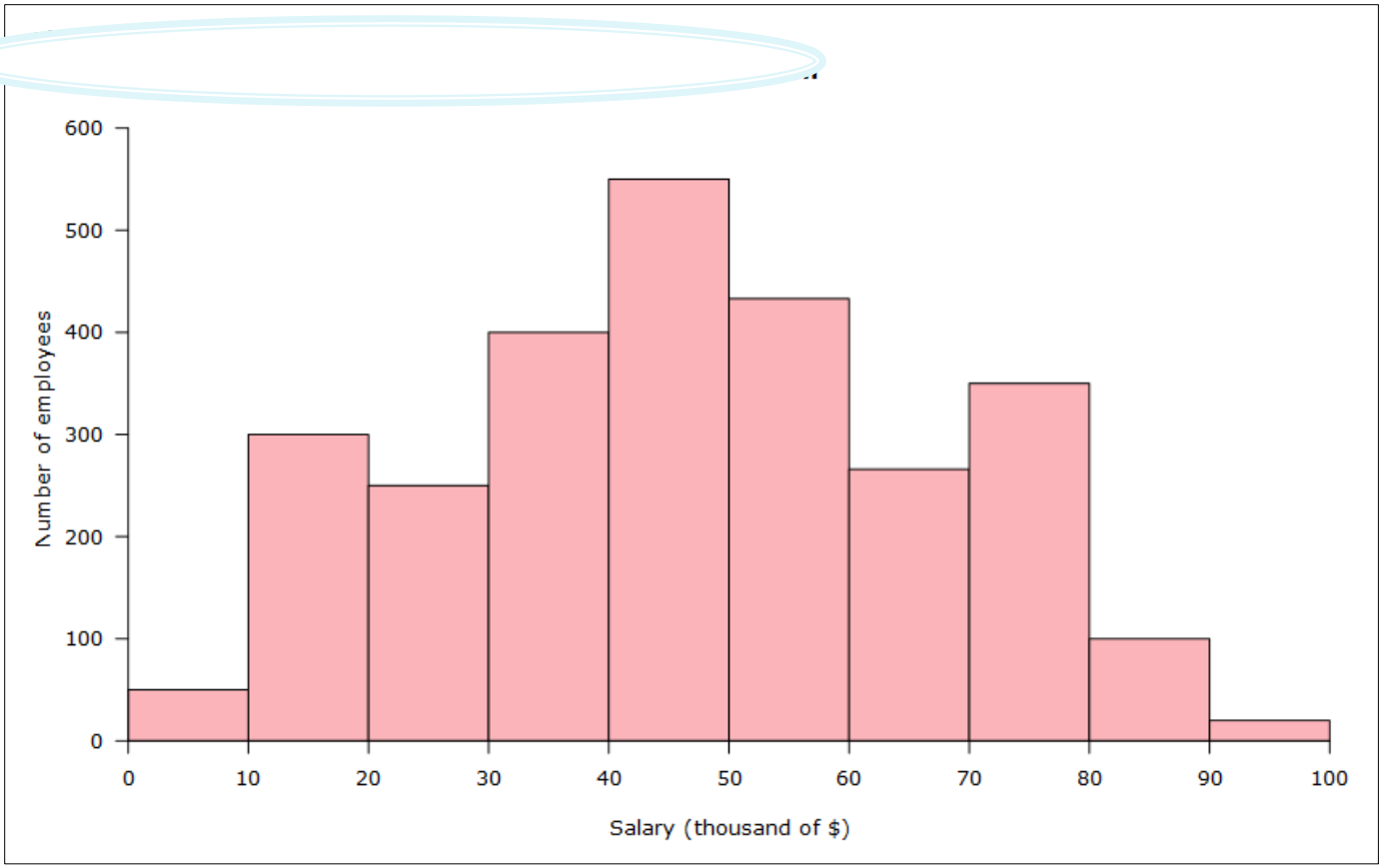
Bar Diagram


Number of Students in each group
Girls
Boys
Number of Students
0
5
10
15
20
25
30
35
40
Group A
Group B
Group C
Group D
Groups

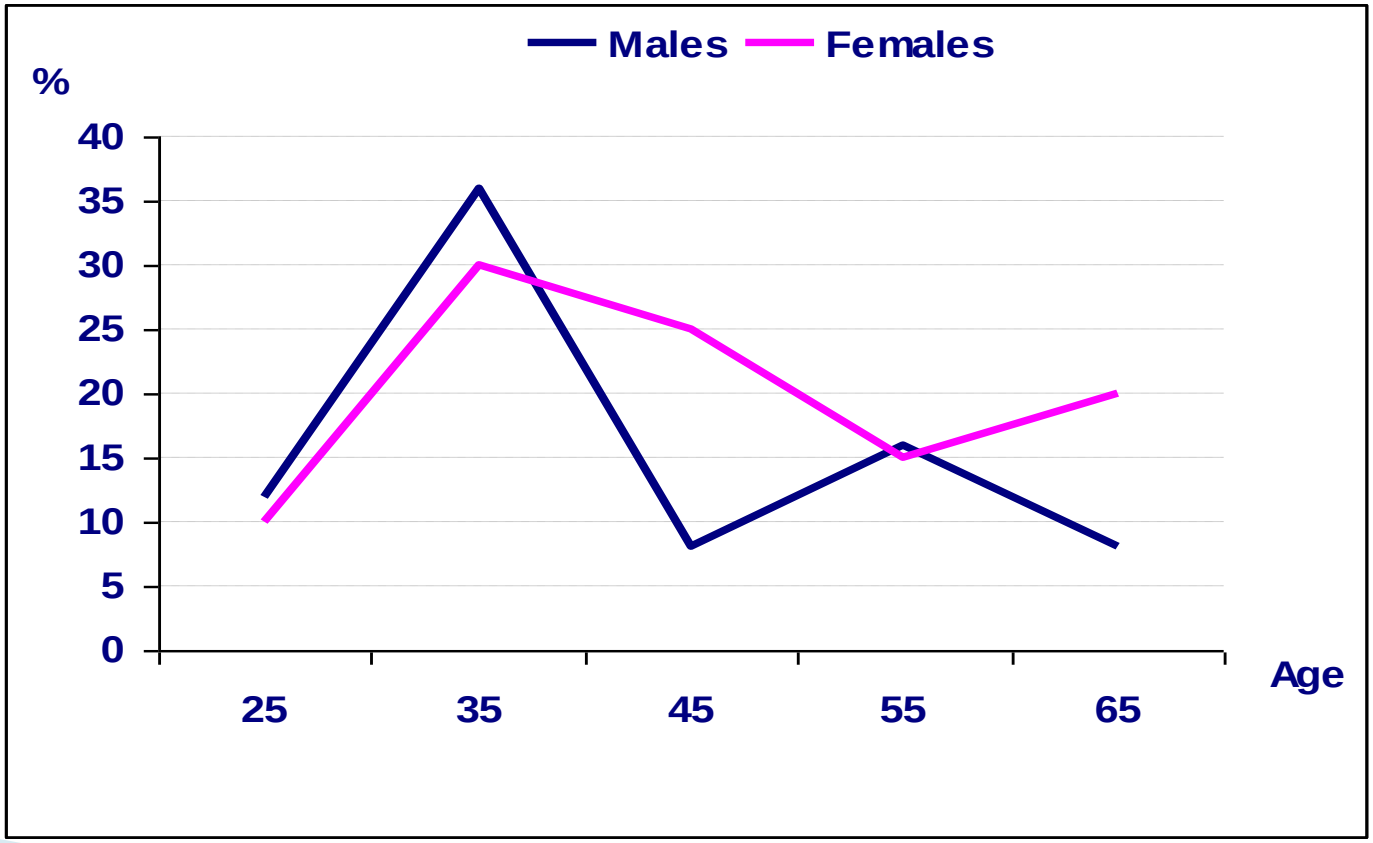
Pie Chart



Histogram


600
500
400
300
200
100
0
Number of employees
0
10
20
30
40
50
60
70
80
90
100
Salary (thousand of $)

Frequency Polygon



THANK YOU