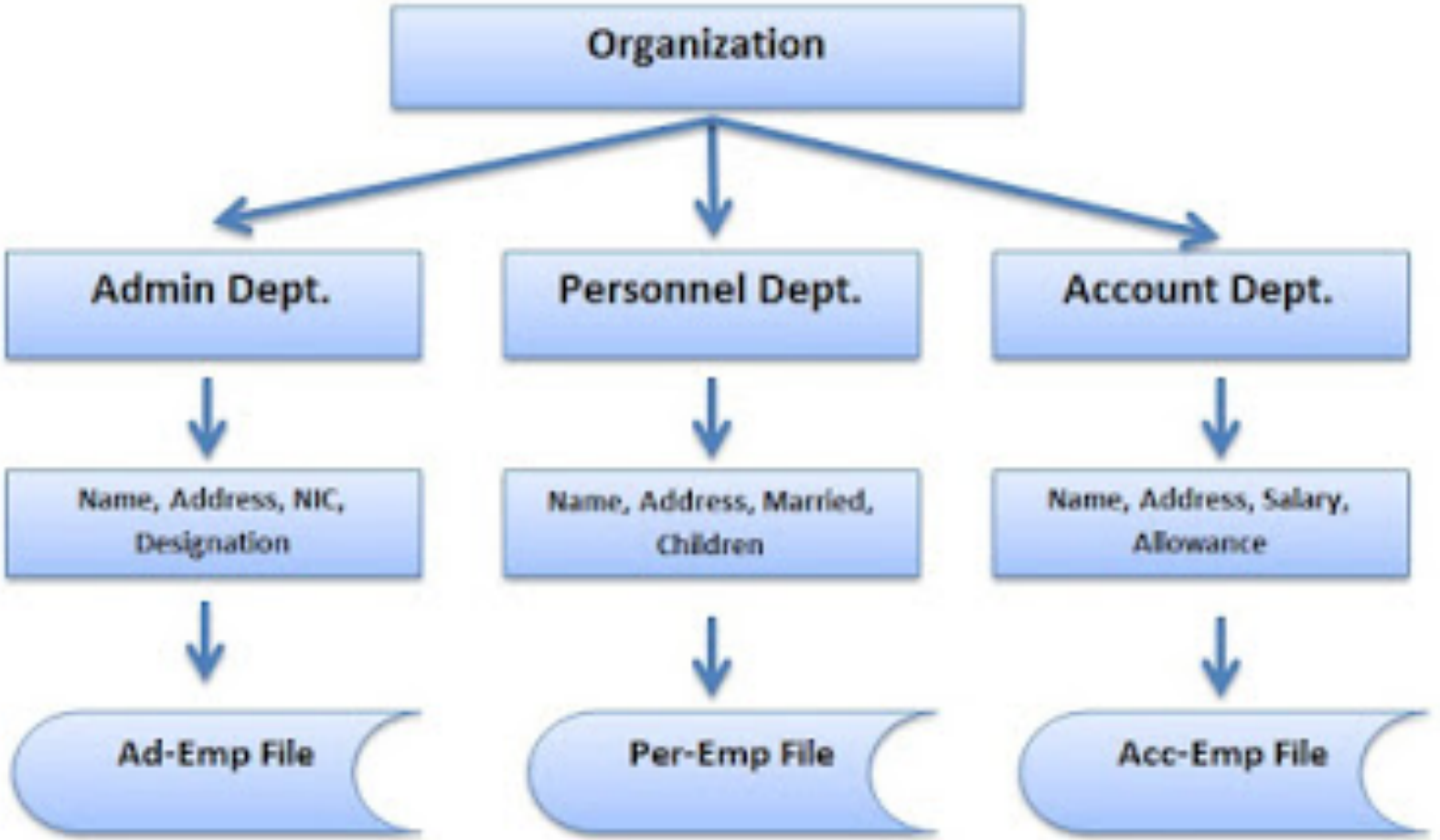
TRADITIONAL APPROACH V/S DATABASE APPROACH

Traditional Approach

To information system design focuses:

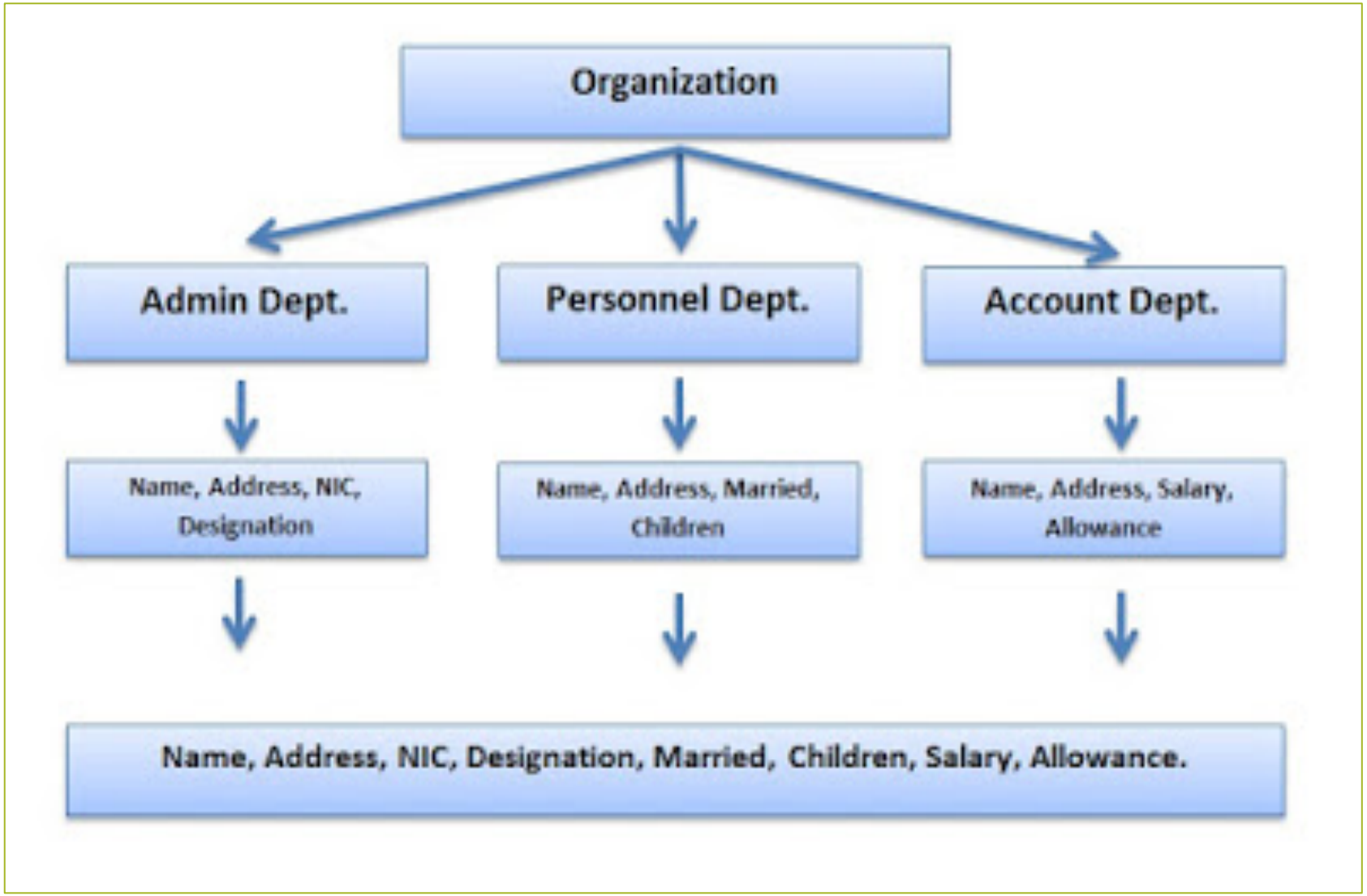
- **on data processing needs of individual department** in an organization without considering the organization as a whole.
- Each application program that is designed :
  - has its **own set of data file**
  - meets the information requirements of particular department or a user group.


Organization
Admin Dept.
Personnel Dept.
Account Dept.
Name, Address, NIC, Designation
Name, Address, Married, Children
Name, Address, Salary, Allowance
Ad-Emp File
Per-Emp File
Acc-Emp File

Database Approach

Database approach overcomes the limitation of file oriented system

- supports an **integrated, centralized data structure**
- allows to **sharing database by different applications**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Traditional Approach	Database Approach
Use separate data file for each application	All Application shares a pool of related and integrated data.
Data redundancy – independent data files include a lot of duplicated data.	Minimal data redundancy – Separate data files are integrated in to a single, logical structure.
Same data is recorded and stored in several files.	Each occurrence of a data item is recorded only once.
Data inconsistency – several versions of the same data may exist.	Single version of data exist
Same update must be done in all occurrences of same data item in each file.	Single update is required.
Users have very little opportunity to share data outside of their own application.	A database is developed to share the data among the user who access to it
There is no centralized control for overall data in different files.	There is centralized control for overall data in database.
Data dependence – description of files, records and data items are embedded within individual application programs.	Data independence – the database system separates data descriptions from the application programs that use the data in it
Modification to data files requires the programs which access that file to be modified.	Data structure can be modified without changing the programs accessing the data
High program maintenance	Less program maintenance
Lack of data integration – accessing data in several files are difficult	Data are organized in to a single logical structure with logical relationships defined between associated data
Difficult to manipulation data	Easy to manipulation data

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