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| Functional Dependency Identification |  |
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|  | **2CS402** |
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|  | What are Functional Dependencies? A functional dependency is a constraint that specifies the relationship  between two sets of attributes where one set can accurately determine the value of other sets. It is denoted as X → Y, where X is a set of attributes that is capable of determining the value of Y. The attribute set on the left side of the arrow, X is called Determinant, while on the right side, Y is called the Dependent. Functional dependencies are used to mathematically express relations among database entities Types of Functional Dependencies: |

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|  | Motivations The topic of functional dependencies is a crucial one as they allow us to eliminate redundancies from the database making it faster and storage efficient at the same time.  There are two reasons to implement functional dependencies:  Implementing this as our project will give us insights on workings of these and challenge us to implement a logical concept in real-world by simulating it in a software environment. |

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|  | Features and Project detailing The Language of choice here is **PYTHON.**  We aim to develop **Django Application** program that will read User Input from a **FILE (CSV)** or through the **PROVIDED INTERFACE** where the user will enter a valid table.  The program will Identify potential functional dependencies and display or write the output to console and file respectively. Libraries/APIs UsedAdditional/OPTIONAL features  * *Finding minimal functional dependencies from the given data* * *Key Identification From the given data* * *Web-based GUI* |