COURSES Table

Contains information related to each course. Each course is given a unique code called course code.

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| **Column Name** | **Data Type** | **Description** |
| CCODE | VARCHAR2(5) | Course Code. This is the primary key of the table. |
| NAME | VARCHAR(30) | Name of the course. |
| DURATION | NUMBER(3) | Duration of the course in no. of working days. |
| FEE | NUMBER(5) | Course fee of the course. |
| PREREQUISITE | VARCHAR2(100) | Prerequisite knowledge to do the course. |

The following are the required constraints of COURSES table.

* CCODE is primary key.
* FEE must be greater than or equal to 0.
* DURATION must be greater than or equal to 0.

FACULTY Table

Contains information about all the faculty members. Each faculty member is given a code called as FACCODE.

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| **Column Name** | **Data Type** | **Description** |
| FACCODE | VARCHAR2(5) | Faculty code. This is the primary key of the table. |
| NAME | VARCHAR2(30) | Name of the faculty. |
| QUAL | VARCHAR2(30) | Qualification of the faculty member. |
| EXP | VARCHAR2(100) | Experience of the faculty member. |

The following are the constraints of FACULTY table.

* FACCODE is primary key.

COURSE\_FACULTY table

Contains information regarding which faculty member can take which course. A single faculty member may be capable of handling multiple courses. However, each member is given a grade depending on his expertise in handling the subject. The grade will be wither A, B or C.

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| **Column Name** | **Data Type** | **Description** |
| FACCODE | VARCHAR2(5) | Faculty code. |
| CCODE | VARCHAR2(5) | Course the faculty can handle. |
| GRADE | CHAR(1) | Rating of faculty’s ability to handle this particular code.  A – Very good, B- Good,  C- Average. |

The following are the constraints of the table.

* FACCODE is a foreign key referencing FACCODE column of FACULTY table.
* CCODE is a foreign key referencing CCODE column of COURSES table.
* Primary key is consisting of FACCODE and CCODE.
* GRADE column must contain either A, B or C.

Batches table

Contains information about all the batches. These batches include batches that were completed, that are currently running and that are scheduled but yet to start.

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| **Column Name** | **Data Type** | **Description** |
| BCODE | VARCHAR2(5) | Code that is assigned to each batch. This is the primary key of the table. |
| CCODE | VARCHAR2(5) | Course code of the course of this batch. This is a foreign key referencing CCODE of COURSES table. |
| FACCODE | VARCHAR2(5) | Code of the faculty member taking this batch. |
| STDATE | DATE | Date on which the batch has started or scheduled to start if batch has not yet started. |
| ENDDATE | DATE | Date on which the batch has completed. If batch is not completed this will be null. |
| TIMING | NUMBER(1) | Number indicating the timing of the batch. 1- morning, 2 – after noon, and 3-evening. |

The following are the required constraints of this table.

* BCODE is the primary key.
* CCODE is a foreign key referencing CCODE of COURSES table.
* FACCODE is a foreign key referencing FACCODE of FACULTY table.
* STDATA must be <= ENDDATE
* TIMING column must be 1, 2 or 3.

STUDENTS table

Contains information about all the students of the institute. Each student is given a roll number. Roll number will be allotted to each student of each batch.

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| --- | --- | --- |
| **Column Name** | **Data Type** | **Description** |
| ROLLNO | NUMBER(5) | Roll number that is assigned to each student. This is the primary key of the table. |
| BCODE | VARCHAR2(5) | Code of the batch to which student belongs. This is the foreign key referencing BCODE of BATCHES table. |
| NAME | VARCHAR2(30) | Name of the student. |
| GENDER | CHAR(1) | Gender of the student. M for male and F for female. |
| DJ | DATE | Date on which the student has joined. |
| PHONE | VARCHAR2(10) | Contact number of the student. |
| EMAIL | VARCHAR2(30) | Email address of the student. |

The following are the constraints of the table.

* ROLLNO is the primary key.
* BCODE is a foreign key referencing BCODE of BATCHES table.
* GENDER may be either M or F.

PAYMENTS table

Contains information about all the payment made by students of all bathes.

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| --- | --- | --- |
| **Column Name** | **Data Type** | **Description** |
| ROLLNO | NUMBER(5) | Roll number of the student paying the fee. |
| DP | DATE | Date on which the amount is paid. |
| AMOUNT | NUMBER(5) | The amount paid by student. |

The following are the constraints.

* Primary key is consisting of ROLLNO and DP.
* AMOUNT must be >= 25