Tabelas: Disciplina

Aluno

|  |  |
| --- | --- |
| id\_aluno\* | nome\_aluno |
| 199839550 | Jonatan |
| 199839551 | Luisa |
| 199839556 | Paulo |
| 199839559 | Juan |
| 199839562 | Ana |

|  |  |  |
| --- | --- | --- |
| id\_disc\* | nome\_ disc | carga\_hor |
| 025 | ADS 025 | 200 hrs |
| 205 | EAD 205 | 50 hrs |
| 052 | BD 052 | 150 hrs |
| 502 | ER 502 | 150 hrs |
| 250 | IS 250 | 150 hrs |

Professor

|  |  |  |
| --- | --- | --- |
| Id\*\_prof | nome\_prof | titulacao\_prof |
| 3056 | Jose | ADS 025 |
| 3022 | Maria | EAD 205 |
| 3033 | Pedro | BD 052 |
| 3412 | Felipe | ER 502 |
| 3340 | Gabriel | IS 250 |

Turma

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Id\_turma\* | num\_periodo | id\_disc | id\_prof | Hor\_aula | Num\_sala |
| 1 | 1° | 025 | 3056 | 19:00 | 13 |
| 1 | 2° | 025 | 3056 | 21:00 | 7 |
| 2 | 2° | 052 | 3412 | 9:00 | 11 |
| 1 | 4° | 025 | 3056 | 7:00 | 14 |
| 3 | 7° | 250 | 3340 | 22:00 | 20 |

Histórico

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id\_historico\* | id\_turma | id\_aluno | num\_faltas | media\_final |
| 032 | 1 | 199839550 | 85% | 3 |
| 023 | 1 | 199839551 | 80% | 4 |
| 054 | 2 | 199839556 | 35% | 8 |
| 096 | 1 | 199839559 | 5% | 9 |
| 123 | 3 | 199839562 | 15% | 8 |

1) A) Tabela: Professor

|  |  |  |
| --- | --- | --- |
| Id\*\_prof | nome\_prof | titulacao\_prof |
| 3056 | Jose | ADS 025 |
| 3022 | Maria | EAD 205 |
| 3033 | Pedro | BD 052 |
| 3412 | Felipe | ER 502 |
| 3340 | Gabriel | IS 250 |

A=R:projeção (π) nome\_prof, titulacao prof

|  |  |
| --- | --- |
| nome\_prof | titulacao\_prof |
| Jose | ADS 025 |
| Maria | EAD 205 |
| Pedro | BD 052 |
| Felipe | ER 502 |
| Gabriel | IS 250 |

B) Tabela: Histórico

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id\_historico\* | id\_turma | id\_aluno | num\_faltas | media\_final |
| 032 | 1 | 199839550 | 85% | 3 |
| 023 | 1 | 199839551 | 80% | 4 |
| 054 | 2 | 199839556 | 35% | 8 |
| 096 | 1 | 199839559 | 5% | 9 |
| 123 | 3 | 199839562 | 15% | 8 |

B-R:Projeção (π) id\_aluno, num\_faltas, media\_final

|  |  |  |
| --- | --- | --- |
| id\_aluno | num\_faltas | media\_final |
| 199839550 | 85% | 3 |
| 199839551 | 80% | 4 |
| 199839559 | 5% | 9 |

C) Tabela: Turma

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Id\_turma\* | num\_periodo | id\_disc | id\_prof | Hor\_aula | Num\_sala |
| 1 | 1° | 025 | 3056 | 19:00 | 13 |
| 1 | 2° | 025 | 3056 | 21:00 | 7 |
| 2 | 2° | 052 | 3412 | 9:00 | 11 |
| 1 | 4° | 025 | 3056 | 7:00 | 14 |
| 3 | 7° | 250 | 3340 | 22:00 | 20 |

C-R: Projeção (π) num\_sala, num\_periodo

|  |  |
| --- | --- |
| Num\_periodo | Num\_sala |
| 1° | 13 |
| 2° | 7 |
| 4° | 14 |

D)Tabela: Turma

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Id\_turma\* | num\_periodo | id\_disc | id\_prof | Hor\_aula | Num\_sala |
| 1 | 1° | 025 | 3056 | 19:00 | 13 |
| 1 | 2° | 025 | 3056 | 21:00 | 7 |
| 2 | 2° | 052 | 3412 | 9:00 | 11 |
| 1 | 4° | 025 | 3056 | 7:00 | 14 |
| 3 | 7° | 250 | 3340 | 22:00 | 20 |

Tabela: Aluno

|  |  |
| --- | --- |
| id\_aluno\* | nome\_aluno |
| 199839550 | Jonatan |
| 199839551 | Luisa |
| 199839556 | Paulo |
| 199839559 | Juan |
| 199839562 | Ana |

D- R: Projeção (π) – Junção (⊗turma, aluno) - Seleção(σ id\_prof) id\_prof, num\_periodo, id\_aluno

|  |  |  |
| --- | --- | --- |
| id\_prof | num\_periodo | id\_aluno |
| 3056 | 1° | 199839550 |
| 3056 | 1° | 199839559 |
| 3056 | 1° | 199839551 |

E)Tabela: Histórico

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id\_historico\* | id\_turma | id\_aluno | num\_faltas | media\_final |
| 032 | A1 | 199839550 | 85% | 3 |
| 023 | B1 | 199839551 | 80% | 4 |
| 054 | C2 | 199839556 | 35% | 8 |
| 096 | D3 | 199839559 | 5% | 9 |
| 123 | E3 | 199839562 | 15% | 8 |

Tabela: Aluno

|  |  |
| --- | --- |
| id\_aluno\* | nome\_aluno |
| 199839550 | Jonatan |
| 199839551 | Luisa |
| 199839556 | Paulo |
| 199839559 | Juan |
| 199839562 | Ana |

Tabela: Turma

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Id\_turma\* | num\_periodo | id\_disc | id\_prof | Hor\_aula | Num\_sala |
| A1 | 1° | 025 | 3056 | 19:00 | 13 |
| B1 | 2° | 025 | 3056 | 21:00 | 7 |
| C2 | 2° | 052 | 3412 | 9:00 | 11 |
| D3 | 4° | 025 | 3056 | 7:00 | 14 |
| E3 | 7° | 250 | 3340 | 22:00 | 20 |

Tabela:Disciplina

|  |  |  |
| --- | --- | --- |
| id\_disc\* | nome\_ disc | carga\_hor |
| 025 | ADS 025 | 200 hrs |
| 205 | EAD 205 | 50 hrs |
| 052 | BD 052 | 150 hrs |
| 502 | ER 502 | 150 hrs |
| 250 | IS 250 | 150 hrs |

E -R: Junção (⊗ aluno, turma, disciplina) - Seleção(σ) -nome\_aluno, num\_periodo, nome\_disc, id\_disc, num\_sala, num\_faltas, media\_final

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| nome\_aluno | num\_periodo | nome\_ disc | id\_disc | num\_sala | num\_faltas | media\_final |
| Jonatan | 22 | ADS 025 | Ads 025 | 13 | 85% | 3 |

F)Tabela Histórico:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id\_historico\* | id\_turma | id\_aluno | num\_faltas | media\_final |
| 032 | 1 | **199839550** | 85% | 3 |
| 023 | 1 | **199839551** | 80% | 4 |
| 054 | 1 | **199839556** | 35% | 8 |
| 096 | 1 | **199839559** | 5% | 9 |
| 123 | 1 | **199839562** | 15% | 8 |

Tabela Disciplina:

|  |  |  |
| --- | --- | --- |
| id\_disc\* | nome\_ disc | carga\_hor |
| 025 | Ads | 500 hrs |
| 205 | Ead | 50 hrs |
| 052 | Bd | 150 hrs |
| 502 | Er | 150 hrs |
| 250 | Is | 150 hrs |

F R- Junção (⊗ (HistoricoDisciplina)) - Projeção (π) - id\_aluno, media\_final, id\_disc,

nome\_ disc

|  |  |  |  |
| --- | --- | --- | --- |
| id\_aluno | media\_final | id\_disc | nome\_ disc |
| 199839550 | 3 | 025 | Ads |
| 199839551 | 4 | 205 | Ead |

G) Tabela Turmas:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Id\_turma\* | num\_periodo | id\_disc | id\_prof | Hor\_aula | Num\_sala |
| A1 | 1° | 025 | 3056 | 19:00 | 13 |
| B1 | 1° | 025 | 3056 | 21:00 | 7 |
| C2 | 2° | 052 | 3412 | 9:00 | 11 |
| D3 | 1° | 025 | 3056 | 7:00 | 14 |
| E3 | 7° | 250 | 3340 | 22:00 | 20 |

Tabela Histórico:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id\_historico\* | id\_turma | id\_aluno | num\_faltas | media\_final |
| 032 | A1 | 199839550 | 85% | 3 |
| 023 | B1 | 199839551 | 80% | 4 |
| 054 | C2 | 199839556 | 35% | 8 |
| 096 | D3 | 199839559 | 5% | 9 |
| 123 | E3 | 199839562 | 15% | 8 |

G R- União (∪(turmas, historico)) - Seleção(σ) – id\_turma, id\_prof, id\_aluno

|  |  |  |
| --- | --- | --- |
| id\_turma | id\_prof | id\_aluno |
| A1 | 3056 | 199839550 |
| B1 | 3056 | 199839551 |
| D3 | 3056 | 199839559 |

H) Tabela Disciplinas:

|  |  |  |
| --- | --- | --- |
| id\_disc\* | nome\_ disc | carga\_hor |
| 025 | ADS 025 | 200 hrs |
| 205 | EAD 205 | 50 hrs |
| 052 | BD 052 | 150 hrs |
| 502 | ER 502 | 150 hrs |
| 250 | IS 250 | 150 hrs |

Tabela Professores:

|  |  |  |
| --- | --- | --- |
| Id\*\_prof | nome\_prof | titulacao\_prof |
| 3056 | Jose | ADS 025 |
| 3022 | Maria | EAD 205 |
| 3033 | Pedro | BD 052 |
| 3412 | Felipe | ER 502 |
| 3340 | Gabriel | IS 250 |

H R: Junção (⊗ (Disciplinas, professores)) - Seleção (σ) - id\_disc, nome\_disc, id\_prof

|  |  |  |
| --- | --- | --- |
| id\_disc\* | nome\_ disc | Id\*\_prof |
| 205 | EAD 205 | 3022 |
| 052 | BD 052 | 3033 |
| 502 | ER 502 | 3412 |
| 250 | IS 250 | 3340 |

I) Alunos

|  |  |
| --- | --- |
| id\_aluno\* | nome\_aluno |
| 199839550 | Jonatan |
| 199839551 | Luisa |
| 199839556 | Paulo |
| 199839559 | Juan |
| 199839562 | Ana |

Tabela Disciplinas

|  |  |  |
| --- | --- | --- |
| id\_disc\* | nome\_ disc | carga\_hor |
| 025 | ADS 025 | 200 hrs |
| 205 | EAD 205 | 50 hrs |
| 052 | BD 052 | 150 hrs |
| 502 | ER 502 | 150 hrs |
| 250 | IS 250 | 150 hrs |

I) R:Junção (⊗(alunosDisciplinas)) - Projeção(π) - nome\_aluno , nome\_ disc

|  |  |
| --- | --- |
| nome\_aluno | nome\_ disc |
| Jonatan | ADS 025 |
| Jonatan | EAD 205 |
| Jonatan | BD 052 |
| Jonatan | ER 502 |
| Jonatan | IS 250 |

J) Tabela Histórico:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id\_historico\* | id\_turma | id\_aluno | num\_faltas | media\_final |
| 032 | A1 | 199839550 | 85% | 3 |
| 023 | B1 | 199839551 | 80% | 4 |
| 054 | C2 | 199839556 | 35% | 8 |
| 096 | D3 | 199839559 | 5% | 9 |
| 123 | E3 | 199839562 | 15% | 8 |

Tabela Disciplinas

|  |  |  |
| --- | --- | --- |
| id\_disc\* | nome\_ disc | carga\_hor |
| 025 | ADS 025 | 200 hrs |
| 205 | EAD 205 | 50 hrs |
| 052 | BD 052 | 150 hrs |
| 502 | ER 502 | 150 hrs |
| 250 | IS 250 | 150 hrs |

J R: Divisão(÷ (historico, disciplinas)) - Seleção (σ) - Frequência <75%, nota <5

|  |  |  |
| --- | --- | --- |
| id\_aluno | num\_faltas | media\_final |
| 199839556 | 35% | 8 |
| 199839559 | 5% | 9 |
| 199839562 | 15% | 8 |