COLETA DE MATERIAIS DE GENSHIN IMPACT

Ana Gabriella e Pedro Aguiar



- . Organizar os materiais e artefatos que precisa coletar
- . Quais materiais que cada personagem precisa
- . Quais materiais que as habilidades dos personagens precisam
- . Disponibilidade dos materiais e artefatos

PROTÓTIPO E TABELA DE DADOS



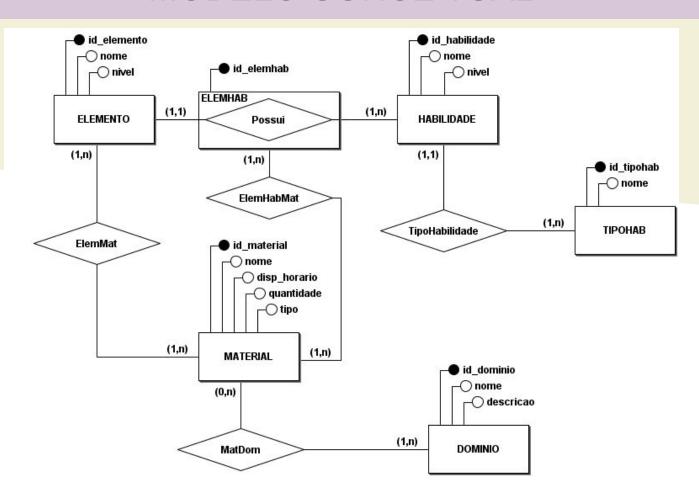


nome_dominio	nome_material
Enter the Golden House	Shadow of the Warrior
Confront Stormterror	Dvalins Plume
Beneath the Dragon-Queller	Bloodjade Branch
Narukami Island: Tenshukaku	Hellfire Butterfly
Confront Stormterror	Dvalins Claw

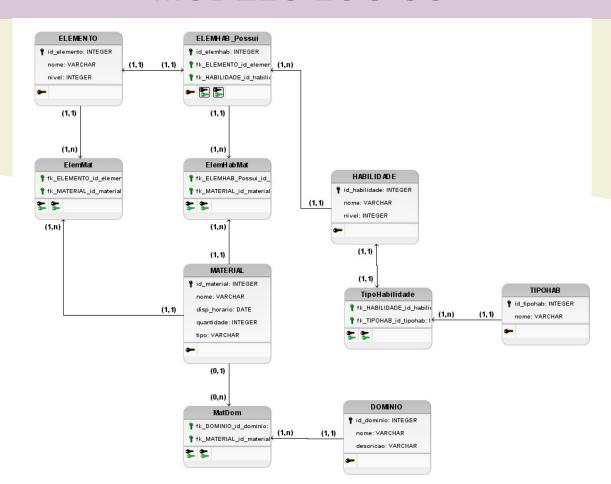
elemento	nivel_elemento	material
Solar Pearl	60	Relic from Guyun
Aqua Simulacra	80	Relic from Guyun
Calamity Queller	70	Mist Veiled Gold Elixir
Skyward Pride	40	Boreal Wolfs Cracked Tooth
Everlasting Moonglow	50	Jeweled Branch of a Distant Sea
Jean	40	Vayuda Turquose Fragment
Noelle	80	Primitiva Topaz Gemstone
Xiao	85	Vayuda Turquose Gemstone

nome_elemento	nome_habilidade	nome_material
Jean	Favonius Bladework	Dvalins Plume
Jean	Gale Blade	Dvalins Plume
Jean	Dandelion Breeze	Dvalins Plume
Noelle	Favonius Bladework - Maid	Dvalins Claw
Noelle	Breastplate	Dvalins Claw
Noelle	Sweping Time	Dvalins Claw
Xiao	Whirlwind Thrust	Shadow of the Warrior
Xiao	Lemniscatic Wind Cycling	Shadow of the Warrior
Xiao	Bane of All Evil	Shadow of the Warrior
Ayaka	Kabuki	Bloodjade Branch

MODELO CONCEITUAL



MODELO LÓGICO



MODELO FÍSICO

```
CREATE TABLE ELEMENTO (
  id elemento INTEGER PRIMARY KEY,
  nome VARCHAR,
  nivel INTEGER
);
CREATE TABLE HABILIDADE (
  id habilidade INTEGER PRIMARY KEY,
  nome VARCHAR,
  nivel INTEGER
);
CREATE TABLE MATERIAL (
    id material INTEGER PRIMARY KEY,
    nome VARCHAR,
    disp horario DATE,
    quantidade INTEGER,
    tipo VARCHAR
);
CREATE TABLE DOMINIO (
    id dominio INTEGER PRIMARY KEY,
    nome VARCHAR,
    descricao VARCHAR
);
```

```
CREATE TABLE ELEMHAB Possui (
    id elemhab INTEGER PRIMARY KEY,
    fk ELEMENTO id elemento INTEGER,
    fk HABILIDADE id habilidade INTEGER
);
CREATE TABLE TIPOHAB (
    id tipohab INTEGER PRIMARY KEY,
    nome VARCHAR
CREATE TABLE ElemMat (
    fk ELEMENTO id elemento INTEGER,
    fk MATERIAL id material INTEGER
);
CREATE TABLE ElemHabMat (
    fk ELEMHAB Possui id elemhab INTEGER,
    fk MATERIAL id material INTEGER
);
CREATE TABLE MatDom (
    fk DOMINIO id dominio INTEGER,
    fk MATERIAL id material INTEGER
);
CREATE TABLE TipoHabilidade (
    fk HABILIDADE id habilidade INTEGER,
    fk TIPOHAB id tipohab INTEGER
```

INSERT

```
INSERT INTO DOMINIO VALUES
                                                     INSERT INTO HABILIDADE VALUES
                                                                                               INSERT INTO MATERIAL VALUES
                                                                                               (1, 'Relic from Guyun', '2022-06-20', 1, 'Weapon Ascension Material'),
(1, 'Enter the Golden House', 'Boss Domain'),
                                                     (1, 'Favonius Bladework', 6),
                                                                                               (2, 'Mist Veiled Gold Elixir', '2022-06-21', 2, 'Weapon Ascension Material'),
(2, 'Confront Stormterror', 'Boss Domain'),
                                                     (2, 'Gale Blade', 8),
                                                                                               (3, 'Boreal Wolfs Cracked Tooth', '2022-06-20', 1, 'Weapon Ascension Material'),
(3, 'Beneath the Dragon-Queller', 'Boss Domain'),
                                                     (3, 'Dandelion Breeze', 7),
                                                                                               (4, 'Jeweled Branch of a Distant Sea', '2022-06-22', 2, 'Weapon Ascension Material'),
(4, 'Forsaken Rift', 'Talent Material'),
                                                     (4, 'Favonius Bladework - Maid', 4),
(5, 'Taishan Mansion', 'Talent MAterial'),
                                                     (5, 'Breastplate', 5),
                                                                                               (5, 'Vayuda Turquoise Fragment', '2022-06-20', 3, 'Character Ascension Material'),
                                                                                               (6, 'Hurricane Seed', '2022-06-20', 2, 'Elemental Stone'),
(6, 'Violet Court', 'Talent Material'),
                                                     (6, 'Sweeping Time', 4),
                                                                                               (7, 'Prithiva Topaz Gemstone', '2022-06-20', 3, 'Character Ascension Material'),
(7, 'Cecilia Garden', 'Weapon Material');
                                                     (7, 'Whirlwind Thrust', 8),
                                                                                               (8, 'Basalt Pillar', '2022-06-20', 3, 'Elemental Stone'),
                                                     (8, 'Lemniscatic Wind Cycling', 8),
                                                     (9, 'Bane of All Evil', 6),
                                                                                               (9, 'Vayuda Turquoise Gemstone', '2022-06-20', 3, 'Character Ascension Material'),
INSERT INTO ELEMENTO VALUES
                                                                                               (10, 'Juvenile Jade', '2022-06-20', 3, 'Elemental Stone');
(1, 'Solar Pearl', 60),
                                                      (10, 'Kabuki', 7);
(2, 'Aqua Simulacra', 60),
                                                                                               INSERT INTO ELEMHABMAT VALUES
(3, 'Calamity Queller', 70),
                                                     INSERT INTO TIPOHABILIDADE VALUES
(4, 'Skyward Pride', 40),
                                                     (1,1),
                                                                                               (1, 15),
                                                                                               (2.15).
(5, 'Everlasting Moonglow', 50),
                                                     (2,2),
                                                                                               (3.15).
(6, 'Jean', 40),
                                                     (3,3),
                                                                                               (4,16),
(7,'Noelle',80),
                                                     (4,1),
                                                                                                                             INSERT INTO ELEMMAT VALUES
                                                                                                                                                                  INSERT INTO ELEMHAB POSSUI
(8, 'Xiao', 85),
                                                     (5,2),
                                                                                               (5, 16),
                                                                                                                             (1,1),
                                                                                                                                                                  VALUES
                                                                                               (6,16),
(9, 'Avaka', 60),
                                                     (6,3),
                                                                                                                             (2,1),
                                                                                               (7,17),
(10, 'Sangonomiya Kokomi', 70);
                                                     (7,1),
                                                                                                                                                                  (1,6,1),
                                                                                                                             (3, 2),
                                                                                               (8,17),
                                                     (8,2),
                                                                                                                                                                  (2,6,2).
                                                                                                                             (4,3),
INSERT INTO TIPOHAB VALUES
                                                     (9,3),
                                                                                               (9,17),
                                                                                                                                                                  (3, 6, 3),
                                                                                                                             (5,4),
                                                                                               (10, 18);
(1, 'NORMAL'),
                                                     (10,1);
                                                                                                                             (6,5),
                                                                                                                                                                  (4,7,1),
(2, 'ELEMENTAL'),
                                                                                                                             (6,6),
                                                                                                                                                                  (5,7,2),
(3, 'SUPREMA');
                                                                                                                             (7,7),
                                                                                                                                                                  (6,7,3),
                                                                                                                             (7,8),
INSERT INTO MATDOM VALUES
                                                                                                                                                                  (7, 8, 1),
                                                                                                                             (8,9),
(1,17),
                                                                                                                                                                  (8.8.2).
                                                                                                                             (8,10),
(2,15),
                                                                                                                             (9,11),
                                                                                                                                                                  (9, 8, 3),
(2.16).
                                                                                                                             (9,12),
                                                                                                                                                                  (10, 9, 1);
(3,18);
                                                                                                                             (10, 13),
                                                                                                                             (10,14);
```

CONSULTA COM INNER JOIN E ORDER BY

SELECT E.NOME AS NOME_ELEMENTO, H.NOME AS NOME_HABILIDADE, MAT.NOME AS NOME_MATERIAL, D.NOME AS NOME_DOMINIO FROM ELEMENTO E

INNER JOIN ELEMHAB_POSSUI EHP ON(E.ID_ELEMENTO = EHP.FK ELEMENTO ID ELEMENTO)

INNER JOIN HABILIDADE H ON(EHP.FK_HABILIDADE_ID_HABILIDADE =
H.ID HABILIDADE)

INNER JOIN ELEMHABMAT EHM ON(EHP.ID_ELEMHAB = EHM.FK ELEMHAB POSSUI ID ELEMHAB)

INNER JOIN MATERIAL MAT ON(EHM.FK_MATERIAL_ID_MATERIAL =
MAT.ID MATERIAL)

INNER JOIN MATDOM MD ON(MAT.ID_MATERIAL =
MD.FK MATERIAL ID MATERIAL)

INNER JOIN DOMINIO D ON(MD.FK_DOMINIO_ID_DOMINIO =
D.ID DOMINIO)

GROUP BY E.NOME, H.NOME, MAT.NOME, D.NOME

ORDER BY E.NOME ASC

	nome_elemento character varying	nome_habilidade character varying	nome_material character varying	nome_dominio character varying
1	Ayaka	Hyouka	Bloodjade Branch	Beneath the Dragon-Queller
2	Ayaka	Kabuki	Bloodjade Branch	Beneath the Dragon-Queller
3	Ayaka	Soumetsu	Bloodjade Branch	Beneath the Dragon-Queller
4	Jean	Dandelion Breeze	Dvalins Plume	Confront Stormterror
5	Jean	Favonius Bladework	Dvalins Plume	Confront Stormterror
6	Jean	Gale Blade	Dvalins Plume	Confront Stormterror
7	Noelle	Breastplate	Dvalins Claw	Confront Stormterror
8	Noelle	Favonius Bladework - Maid	Dvalins Claw	Confront Stormterror
9	Noelle	Sweeping Time	Dvalins Claw	Confront Stormterror
10	Sangonomiya Kokomi	Kurages Oath	Hellfire Butterfly	Narukami Island: Tenshukaku
11	Sangonomiya Kokomi	Nereids Ascension	Hellfire Butterfly	Narukami Island: Tenshukaku
12	Sangonomiya Kokomi	Yhe Shape of Water	Hellfire Butterfly	Narukami Island: Tenshukaku
13	Xiao	Bane of All Evil	Shadow of the Warrior	Enter the Golden House
14	Xiao	Lemniscatic Wind Cycling	Shadow of the Warrior	Enter the Golden House
15	Xiao	Whirlwind Thrust	Shadow of the Warrior	Enter the Golden House

CONSULTA COM INNER JOIN E ORDER BY

SELECT E.NOME AS NOME_ELEMENTO, MAT.NOME AS NOME MATERIAL FROM ELEMENTO E

INNER JOIN ELEMMAT EM

ON (EM.FK_ELEMENTO_ID_ELEMENTO=E.ID_ELEMENTO)

INNER JOIN MATERIAL MAT

ON (MAT.ID_MATERIAL=EM.FK_MATERIAL_ID_MATERIAL)

ORDER BY E.NOME, MAT.NOME

4	nome_elemento character varying	nome_material character varying
1	Aqua Simulacra	Relic from Guyun
2	Ayaka	Perpetual Heart
3	Ayaka	Shivada Jade Chunk
4	Calamity Queller	Mist Veiled Gold Elixir
5	Everlasting Moonglow	Jeweled Branch of a Distant Sea
6	Jean	Hurricane Seed
7	Jean	Vayuda Turquoise Fragment
8	Noelle	Basalt Pillar
9	Noelle	Prithiva Topaz Gemstone
10	Sangonomiya Kokomi	Dew of Repudiation
11	Sangonomiya Kokomi	Varunada Lazurite Chunk
12	Skyward Pride	Boreal Wolfs Cracked Tooth
13	Solar Pearl	Relic from Guyun
14	Xiao	Juvenile Jade
15	Xiao	Vayuda Turquoise Gemstone

CONSULTA COM INNER JOIN E ORDER BY

SELECT COUNT(MAT.TIPO) AS QNT_ELEMENTO, MAT.TIPO AS TIPO ELEMENTO FROM ELEMENTO E

INNER JOIN ELEMMAT EM ON(EM.FK_ELEMENTO_ID_ELEMENTO =
E.ID ELEMENTO)

INNER JOIN MATERIAL MAT ON(EM.FK_MATERIAL_ID_MATERIAL
= MAT.ID MATERIAL)

WHERE MAT.TIPO = 'Weapon Ascension Material' OR MAT.TIPO = 'Character Primary Ascension Material'

GROUP BY MAT.TIPO

4	qnt_elemento bigint	tipo_elemento character varying	
1	14	Character Primary Ascension Material	
2	8	Weapon Ascension Material	

CONSULTA COM GROUP BY E FUNÇÕES DE AGRUPAMENTO

SELECT COUNT(TIPO) AS QNT, TIPO FROM MATERIAL GROUP BY TIPO

, a	qnt bigint △	tipo character varying
1	5	Talent Ascencion Material
2	5	Elemental Stone
3	4	Weapon Ascension Material
4	5	Character Ascension Material

CONSULTA COM GROUP BY E FUNÇÕES DE AGRUPAMENTO

SELECT COUNT (DESCRICAO), DESCRICAO FROM DOMINIO GROUP BY DESCRICAO

<i>A</i>	count bigint	descricao character varying
1	3	Weapon Material
2	4	Boss Domain
3	3	Talent Material

CONSULTA COM GROUP BY E FUNÇÕES DE AGRUPAMENTO

SELECT COUNT(TIPO), TIPO, DISP_HORARIO FROM MATERIAL WHERE DISP_HORARIO
= '2022-06-20' GROUP BY TIPO, DISP_HORARIO

4	count bigint	tipo character varying	disp_horario a
1	5	Character Ascension Material	2022-06-20
2	5	Elemental Stone	2022-06-20
3	5	Talent Ascencion Material	2022-06-20
4	2	Weapon Ascension Material	2022-06-20

CONSULTA COM RIGHT JOIN

SELECT MAT.NOME, E.NOME FROM MATERIAL MAT

RIGHT JOIN ELEMMAT EMAT ON (EMAT.FK_MATERIAL_ID_MATERIAL =
MAT.ID_MATERIAL)

RIGHT JOIN ELEMENTO E ON(EMAT.FK_ELEMENTO_ID_ELEMENTO =
E.ID_ELEMENTO)

GROUP BY MAT.NOME, E.NOME

4	nome character varying	nome character varying
1	Juvenile Jade	Xiao
2	Varunada Lazurite Chunk	Sangonomiya Kokomi
3	Relic from Guyun	Aqua Simulacra
4	Vayuda Turquoise Fragment	Jean
5	Relic from Guyun	Solar Pearl
6	Shivada Jade Chunk	Ayaka
7	Jeweled Branch of a Distant Sea	Everlasting Moonglow
8	Hurricane Seed	Jean
9	Boreal Wolfs Cracked Tooth	Skyward Pride
10	Dew of Repudiation	Sangonomiya Kokomi
11	Prithiva Topaz Gemstone	Noelle
12	Mist Veiled Gold Elixir	Calamity Queller
13	Perpetual Heart	Ayaka
14	Basalt Pillar	Noelle
15	Vayuda Turquoise Gemstone	Xiao

CONSULTA COM VIEW

CREATE VIEW VIEW1 AS

SELECT E.NOME AS NOME_ELEMENTO, MAT.NOME AS NOME_MATERIAL

FROM ELEMENTO E

INNER JOIN ELEMMAT EM

ON (EM.FK_ELEMENTO_ID_ELEMENTO=E.ID_ELEMENTO)

INNER JOIN MATERIAL MAT

ON (MAT.ID_MATERIAL=EM.FK_MATERIAL_ID_MATERIAL)

SELECT * FROM VIEW1

4	nome_elemento character varying	nome_material character varying
1	Solar Pearl	Relic from Guyun
2	Aqua Simulacra	Relic from Guyun
3	Calamity Queller	Mist Veiled Gold Elixir
4	Skyward Pride	Boreal Wolfs Cracked Tooth
5	Everlasting Moonglow	Jeweled Branch of a Distant Sea
6	Jean	Vayuda Turquoise Fragment
7	Jean	Hurricane Seed
8	Noelle	Prithiva Topaz Gemstone
9	Noelle	Basalt Pillar
10	Xiao	Vayuda Turquoise Gemstone
11	Xiao	Juvenile Jade
12	Ayaka	Shivada Jade Chunk
13	Ayaka	Perpetual Heart
14	Sangonomiya Kokomi	Varunada Lazurite Chunk
15	Sangonomiya Kokomi	Dew of Repudiation

PERGUNTAS A SEREM RESPONDIDAS

Quantos materiais estão registrados de cada tipo de material;

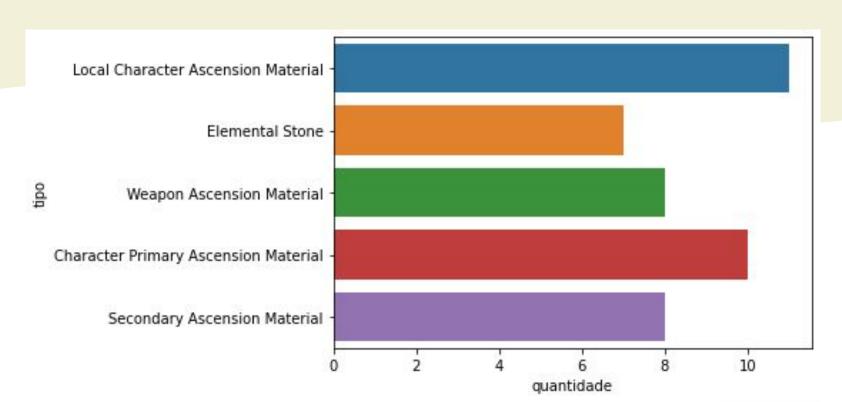
Quantos materiais há em cada domínio registrado;

Quantos materiais são periféricos aos personagens e equipamentos;

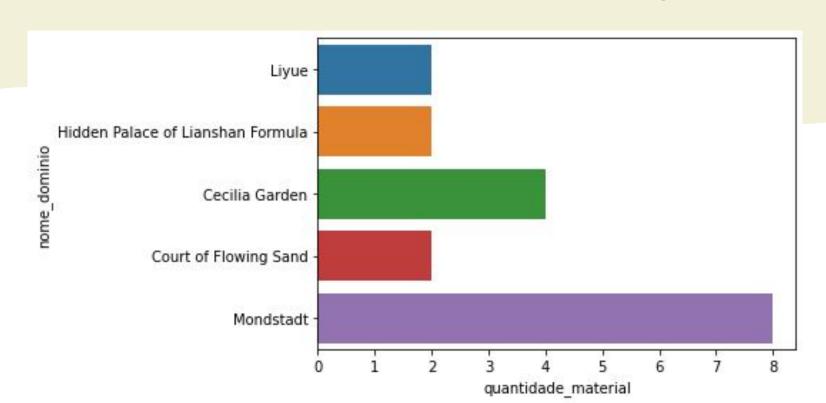
Quantos elementos são do tipo personagem e quantos são do tipo equipamento;

Quantos materiais há disponíveis de cada tipo.

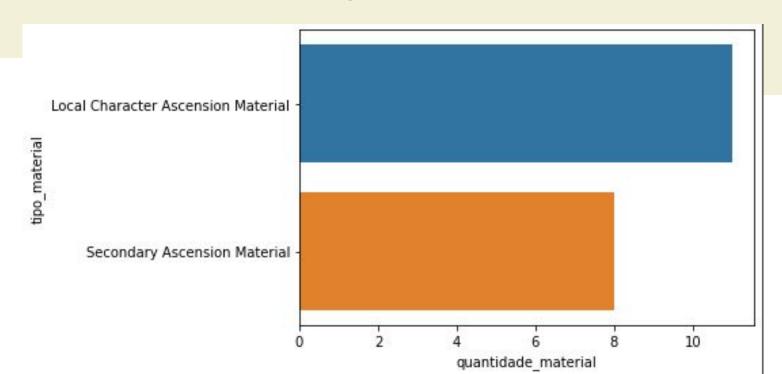
Relatório de quantos materiais estão registrados de cada tipo de material.



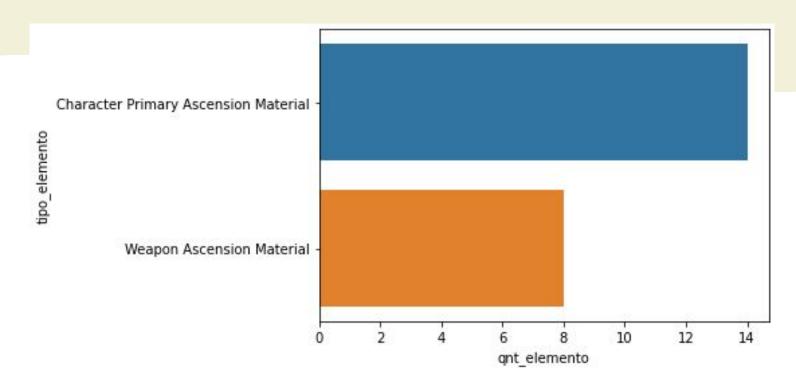
Relatório de quantos materiais há em cada domínio registrado.



Relatório de quantos materiais são periféricos aos personagens e equipamentos



Relatório de quantos elementos são do tipo personagem e quantos são do tipo equipamento.



Relatório de quantos materiais há disponíveis de cada tipo.

