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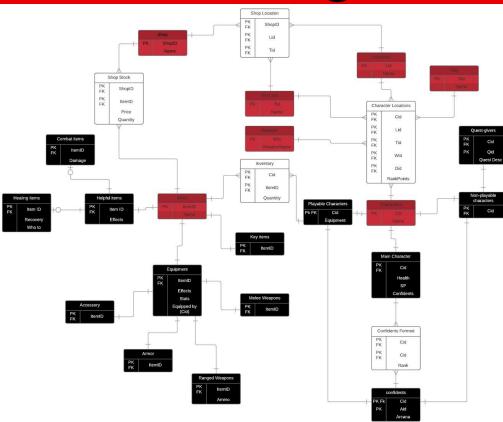
Executive Summary

Video games are becoming bigger and better as more time passes. Some of these game may have so much love and dedication put into them that the sheer amount of information overcomes the player and may throw them out of it. This holds true for Atlus' new long awaited game, Persona 5, which has been in the making for over 3 years. The purpose of this database design project is to give new players who are trying the series for the first time and veteran players so they can have some sort of guide since this game strictly involves time management a much easier time playing the game.

The pages that follow include the creation statements for the main, sub, and second entity tables along with some test data from the game itself included in it. Then it is followed by queries that is tested through the use of joins, views, stored procedures, and triggers so it can be proved useful to the many needs the player of the game might desire. Then, it shows the roles and powers of each person who has some sort of control over the database. Finally, we have the implementation notes, known problems, and future enhancements so the database can be improved to a much higher and more beneficial level.



ER Diagram



Characters

This table provides a list of all the characters in the game.

CREATE Table Characters (
Cid varchar(4) Unique Not NULL,
Name Text,
Primary key (Cid)
);

Dependencies: Cid -> Name



	cid characte	name text
	c000	All
	c001	Alan
	c002	Ryuji
	c003	Ann
	c004	Morgana
	c005	Yusuke
	c006	Makoto
	c007	Haru
	c008	Akechi
	c009	Futaba
	c010	Mishama
	c011	Kawakami
	c012	Sojiro
	c013	Sae
$\overline{\Box}$	c014	Hifumi

Items

This table provides a list of all the items that are available to you in the game.

Create Table Items (
 ItemID varchar(4) Unique Not NULL,
 ItemName Text,
Primary key (ItemID)
);

Functional Dependcies: ItemID -> ItemName



itemid characte	itemname text
1001	Movie Ti
1002	Adhesive
1003	Protein
1004	Takemedic
1005	Takemed
1006	Stun Gun
1007	Air Cann
1008	Machete
1009	Spike Rod
1010	Heavy S
I011	Mirage
I012	Imperial
1013	Iron Fist
1014	Cresent
1015	Quasar
1016	Eliminator
1017	Heavy s

Shop

This table shows a list of all the shops you can visit in the game.

Create Table Shop(
Sid varchar(4) Unique Not NULL,
ShopName Text,
Primary key (Sid)
);

Functional Dependencie: Sid -> ShopName



sid characte	shopname text
S001	Second
S002	Superma
S003	Scarlet
S004	Bookstore
S005	Airsoft s
S006	Big Bang
S007	Diner
S008	Beef Bo
S009	Conveni
S010	Theater
S011	Flower S
S012	Lottery S
S013	Drug Sto
S014	Rocinante
S015	Drink St
S016	Station K
S017	Accessor
S018	Cosmeti

Locations

This table provides a list of all the locations you can visit in the game

Create Table Locations (
Lid varchar(4) Unique Not NULL,
LocationName Text,
Primary key (Lid)
);

Functional Dependencies: Lid -> LocationName



	lid characte	locationn text
	L000	Yougen-J
	L001	Yougen-J
	L002	Yougen-J
	L003	Yougen-J
	L004	Yougen-J
	L005	Yougen-J
	L007	Shibuya:
	L008	Shibuya:
	L009	Shibuya:
	L010	Shibuya:
	L011	Shibuya:
	L012	Shibuya:
	L013	Aoyama
	L014	Aoyama
	L015	Aoyama
	L016	Aoyama
	L017	Aoyama
	L018	Aoyama
П	L019	Aoyama

Time

This table provides a list of all the time slots you have access to in the game.

Create Table Time (
Tid varchar(4) Unique Not NULL,
TimeName Text,
Primary key (Tid)
);

Functional Dependencies: Tid-> TimeName



tid characte	timename text
T000	Anytime
T001	Daytime
T002	Morning
T003	Lunchtime
T004	Afternoon
T005	Aftersch
T006	Evening
T007	Summer

Day

This table provides a list of the Days you have access to in a week.

```
Create Table Day (
Did varchar(4) Unique Not NULL,
DayName Text,
Primary key (Did)
);
```

Functional DependeniesL Did -> DayName



did characte	dayname text
D000	Anyday
D001	Monday
D002	Tuesday
D003	Wednesd
D004	Thursday
D005	Friday
D006	Saturday
D007	Sunday

Weather

This table provides a list of all the possible weather situations a day can have.

Create Table Weather (
Wid varchar(4) Unique Not NULL,
WeatherName Text,
Primary key (Wid)
);

Functional Dependeies: Wid -> WeatherName



wid characte	weather text
W000	Any
W001	Sunny
W002	Rain
W003	Heat Wave
W004	Torrentia
W005	Pollen
W006	Snow

Playable Characters

This table lists all the possible allies you will have on your journey to rehabilitation.

```
Create Table Playable (
Cid varchar(4) Unique Not NULL references Characters(Cid),
HP integer,
SP integer,
Primary key (Cid)
);
```

Functional Dependencies: Cid -> HP, SP

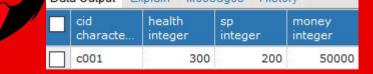


cid characte	hp integer	sp integer
c002	450	100
c003	200	250
c004	200	150
c005	450	150
c006	400	200
c007	50	500
c008	300	250
c009	300	300

MainCharacter

This table provides a detailed list of all the stats the main character can have.

```
Create Table MainCharacter (
  Cid varchar(4) Unique Not NULL references Characters(Cid).
  Health int,
         int.
  Money int,
Primary key (Cid)
```





Non Playable Characters

This table lists the minor NPCs that you may interact with on your journey.

```
Create Table NonPlayable (
Cid varchar(4) Unique Not NULL references Characters(Cid),
Primary key (Cid)
);
```



cid characte
c010
c011
c012
c013
c014

Quest Givers

This tables lists all the requests from others who need yout hrlp

Create Table QuestGivers (
Cid varchar(4) Not NULL references NonPlayable(Cid),
Qid varchar(4) Not NULL,
Primary key (Cid, Qid)

Functional Dependencies: Cid -> Qid



al .	cid characte	qid characte
	c010	q001
	c010	q002
	c011	q003
	c014	q004

Confidents

This table lists all the bonds you may make that will help you on your journey.

```
Create Table Confidents (
Cid varchar(4) Unique Not NULL references Characters(Cid),
Aid varchar(4) Unique Not NULL,
Arcana text,
Primary key (Cid)
```

Functional Dependencies Cid -> Aid, Aid -> Arcana (E YOUR ILEAN)

cid characte	aid characte	arcana text
c002	a007	Chariot
c003	a006	Lovers
c004	a001	Magician
c005	a004	Emperor
c006	a002	Priestess
c007	a003	Empress
c008	a008	Justice
c009	a009	Hermit
c010	a018	Moon
c011	a014	Tempera
c012	a005	Heirophant
c014	a017	Star

Key Items

This table provides a list of all the key items you can attain in the game.

```
Create Table KeyItems (
    ItemID varchar(4) Unique Not NULL references Items(Itemid),
Primary key (Itemid)
);
```







This table provides a list of all the equipment

rafereを高い。 を買う

透隔武器を買う

防具を買う

アクセサリー を買う

	itemid characte	effects text	stats integer	equippe characte	
	I008	Instant K	204	c001	
	I009		132	c002	
Ĺ	I010		200	c003	
	[I011	Despair	204	c004	
	I012	Crit Cha	204	c005	
	I013	Burn (s	204	c006	
	I014	Reflect P	204	c007	
	I015		204	c008	
	I016	Crit Cha	156	c001	
	[I017	Dizzy (s	116	c002	
	I018		110	c003	
	I019		178	c004	
	I020	Burn (Lo	178	c005	
	I021	Despair	134	c006	
	I022	Freeze (170	c007	
	I023	Confuse	234	c008	
	I024	Str +3	192	c001	
	I025	Resist Di	180	c004	
	I026	SP +30	174	c003	
	I027		167	c005	
	I028	Resist Fir	156	c006	
	1029	Resist C	180	c008	
	1030	Reduce	0	c000	
	I031	Reduce	0	c000	
	I032	Evade N	0	c000	





This table provides a list of all the guns you and get from some sketchy guy in all

近接武器を買う

Create Ta	ble Ranged	Weapons (医順武器
Item IQ	varchar(4)	Not NULL 1	eferences E	quipment(Itemid),
Ammo	integer			

防具を買う

アクセサリー を買う

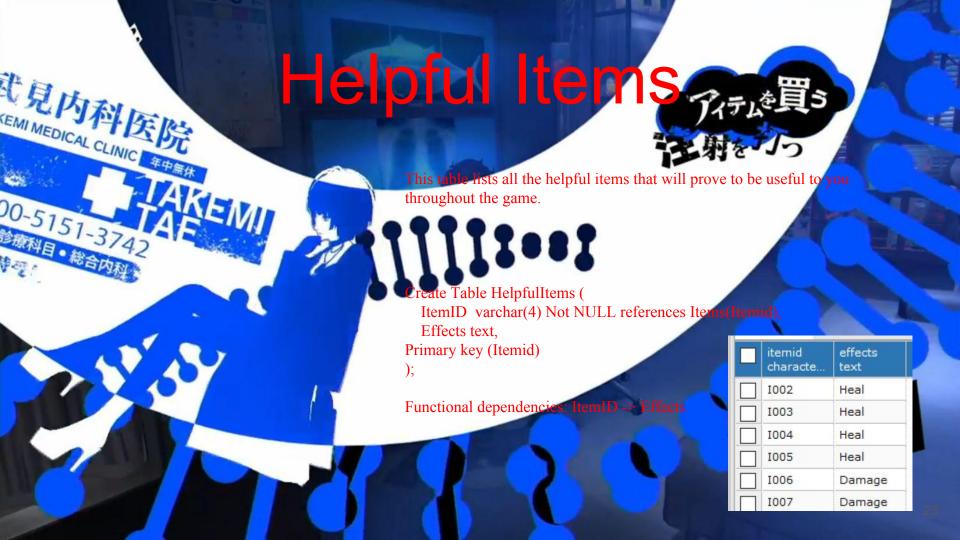
	16	8	12	48	32	12	6	18
itemid characte	I016	I017	I018	I019	1020	I021	1022	1000

7,430

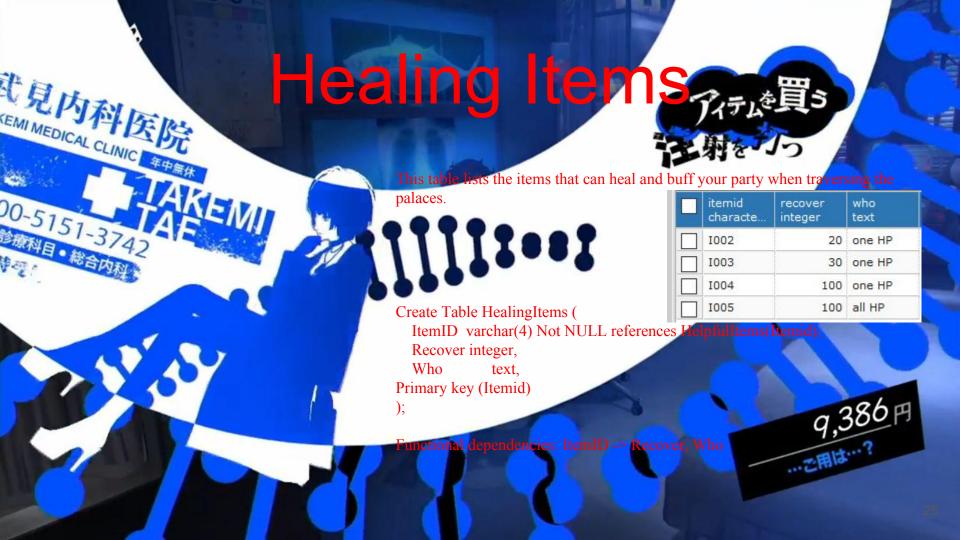












Bonds

This table lists the bonds you have formed throughout your journey and how strong they are.

Create Table Bonds (
Cid varchar(4) Not NULL references MainCharacter(Cid),
Aid varchar(4) Not NULL references Confidents(Aid),
Rank int,
Points int,
Primary key (Cid, Aid)
);

cid characte	aid characte	rank integer	points integer
c001	a007	3	5
c001	a006	2	3
c001	a009	4	6

Functional Dependencies: Cid, Aid -> Rank, Points

Stock

This table lists how much the items in the stores cost and how much of the item they have in stock.

Create Table ShopStock (
Sid varchar(4) Not NULL references Shop(Sid),
ItemID varchar(4) Not NULL references Items(ItemID),
Price integer,
Stock Integer CHECK (Stock <100),
Primary key (Sid, ItemID)

Functional Dependencies: Sid, ItemId -> Price, Stock | The Price | Stock | The Price |

sid characte	itemid characte	price integer	stock integer
S001	1002	120	99
S010	I001	1500	1
S005	1008	30400	3
S005	I018	9600	5
S005	I025	32499	99
S019	1030	50000	1

Shop Locations

This table lists the location of all the shops you can buy stuff from.

```
Create Table ShopLocation (
```

Sid varchar(4) Not NULL references Shop(Sid),

Lid varchar(4) Not NULL references Locations(Lid),

Tid varchar(4) Not NULL references Time(Tid),

Primary key (Sid, Lid, Tid)

);

Functional dependencies: Sid -> Lid, Tid



١	sid characte	lid characte	tid characte
	S001	L000	T000
	S021	L010	T000
ľ	S022	L010	T005
l	S026	L022	T004
	S028	L020	T006

Inventory

This table lists all the items you and your party are currently holding

```
Create Table Inventory (
Cid varchar(4) Not NULL references Characters(Cid),
ItemID varchar(4) Not NULL references Items(ItemID),
Quantity Integer DEFAULT '0',
Primary key (Cid, ItemID)
);
```

cid characte	itemid characte	quantity integer
c001	1008	1
c004	1004	3
c003	I018	1

Confident Location

This table lists the location of all those you can form bonds with,

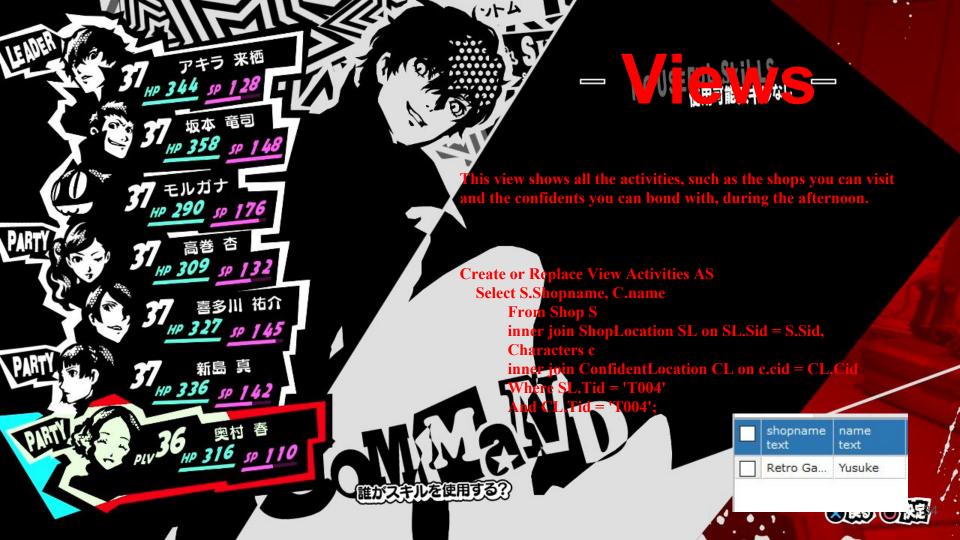
	cid characte	lid characte	did characte	tid characte	wid characte	rankpoints integer
	c002	L011	D006	T005	W001	3
	c005	L009	D005	T004	W001	1
	c005	L009	D006	T005	W002	1
$\overline{\Box}$	c006	L017	D003	T005	W002	2
Ħ	c006	L020	D006	T005	W001	3
	c012	L001	D000	T006	W000	3
		characte c002 c005 c005 c006 c006	characte characte c002	characte characte characte c002 L011 D006 c005 L009 D005 c005 L009 D006 c006 L017 D003 c006 L020 D006	characte characte	characte characte

Functional Dependencies: Cid -> Lid, Did, Tid, Wid, Rank Points











This stored procedure shows all the available these confiden Sole Of your choice has so you can bond with them.

防具 ★ PROTECTOR ダークインナー

アクセサリー ★ ACCESSORY

秀尽学園高校制服·冬

CREATE OR REPLACE FUNCTION FindingConfident (Text)

ファッショングラス RETURNS TABLE (Name Text, LocationName Text, TimeName Text)

AS \$\$

DECLARE

Confident TEXT := \$1;

BEGIN

RETURN QUERY

From Characters cinner join ConfidentLocations CL on C.cid = CL.cid,

onfidentLocations where L.Lid = CL.Lid,

Cincin a confident;

\$\$ LANGUAGE plpsql;



モルガナ

This stored procedure shows a sorted list of all the helpful Items that have the effect you desire.

CREATE OR REPLACE FUNCTION ItemType(Text) RETURNS TABLE (ItemName Text)

AS \$\$

DECLARE

 MP^{-}

item TEXT := \$1;

BEGIN

RETURN QUERY

Select I.ItemName

From Item Linner win Helpfulltens HI on Litemid = HI. Itemid

誰の製備を変更する?

Select ItemType('Heal');

ハンドガン

防具 ★ PROTECTOR

ダークインナー

アクセサリー ★ ACCESSORY

ファッショングラス

衣装 ★ CLOTHES

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This Trigger makes it so you can heal all o your characters MMana Selectorstead of just one

REATE OR REPLACE FUNCTION HealALL(Heal) RETURNS TRIVER ASSACCESSON DECLARE

Heal int;

If (Playable.HP < 500

THEN

UPDATE PLAYABLE

SET HP = HP

ダークインナー

ファッショングラス

衣装 ★ CLOTHES

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CREATE TRIGGER HealAll AFTER UPDATE OF **EXECUT**



This database has two roles: The first role Belongs to the admin of the game, who Can control all the data in the database.

CREATE ROLE admin; GRANT ALL ON ALL TABLES IN SCHEMA public TO admin; The second role, which is the player, Has the power to control only certain parts of the game, like his main character, other characters, etc.

CREATE ROLE Alan; GRANT SELECT ON ALL TABLES IN SCHEMA public TO Alan;

GRANT INSERT ON Inventory, Bonds,
MainCharacter, Playable to Alan;
GRANT UPDATE ON Inventory, Bonds,
MainCharacter, Playable to Alan;



Implementation Notes

- This does not include how indepth the daily life system goes due to how much it interacts with other tables, such as the battle system.
- While all the data is real and accurate to the game, it does not have all the data due to me playing the game and not wanting to spoil the story by googling information. So the data came from me looking it up through my save file in the game.

Known Problems

- No way to separate stock from total price from the view table know as "Equipped by".
- Unknown way to equip one item to many people, such as a dress for all the girl characters except for one, besides creating more insert statements or having a separate CID for all playable characters.
- Did not include the percentages for how successful a status effect from a weapon can affect an enemy.

Future Enhancements

- Add affinities and status ailments to the weapons so it can go in depth towards the battle system.
- Include a persona table, since it is part of the daily life and dungeon crawling life and is directly
 - affected by the confidents.
- Finish the game so I can add more data.