### IST 659 Final Project

# "Name Navigator" Database Application Spring Semester 2024

June 18, 2024

### **Team 1 Members:**

La Monte H.P. Yarroll (lhyarrol@syr.edu)

Oluwaseyi Durosinmi-Etti (odurosin@syr.edu)

Patrick Le (ple107@syr.edu)

Christopher A. Murphy (<a href="mailto:cmurph66@syr.edu">cmurph66@syr.edu</a>)

### **Table of Contents:**

Overview	5
Glossary of Terms	5
High Level Business Requirements	7
Initial Scope	7
Business Rules	8
Key Stakeholders	8
Functional requirements (Goals)	8
Non-Functional requirements	9
Data Modeling	9
Conceptual Model	9
Particle Order  + name [RU] + particle [RU] + order [R] + locale [R] + unicode [R] + is legal name [R] + is legal name [R] + is dead name [R] + is morific + perferred pronouns [C] + override name [C] + mother + father  Honorific  + unicode [R] + latin1 + ipa + is prefix [R] + locale [R]	Person  + email [RU]  pariticle_types Given Family Nickname Legal Alias Tribe Clan Prefix Title Suffix Suffix Title
Data Requirements	
Logical model	13
Entities and Attributes	14

External Model	16
Application Experience	17
Data Questions & Answers	21
Future Scaling Topics	27
Conclusion & Reflections	27
Team Log	29
Meeting 1: April 28, 2024	29
Discussions	29
Tasks	29
Meeting 2: May 1, 2024	29
Discussions	29
Tasks	29
Meeting 3: May 12, 2024	30
Discussions	30
Tasks	30
Meeting 4: May 19, 2024	30
Discussions	30
Tasks	30
Meeting 5: May 24, 2024	30
Discussions	30
Tasks	31
Meeting 6: May 26, 2024	31

<b>Discussions</b> 31	
Tasks31	
Meeting 7: June 2, 202431	
Discussions	
Tasks	
Meeting 8: June 6, 202432	
La Monte / Chris: Joint Development Session: insert name stored procedure32	
Tasks32	
Meeting 9: June 7, 202432	
La Monte / Chris: Joint Development Session: insert name stored procedure32	
Tasks32	
Meeting 10: June 10, 202432	
La Monte / Chris: Joint Development Session: insert name stored procedure32	
Tasks32	
Meeting 11: June 10, 202432	
La Monte / Patrick: Joint Development Session: views for the external model32	
Tasks32	
Meeting 12: June 15, 2024	
Discussions	
Tasks	
Meeting 13: June 16, 2024	
Discussions	

Tasks	3
-------	---

### Overview

This database solution aims to support a customer service representative in capturing name information for business contacts in customer relationship management "CRM" systems (i.e. the names of prospects, customers, partners, etc.). The solution integrates into CRM workflows and extends the native capabilities of the CRM. Specifically, the solution leverages the location and language preferences (locale) of each contact, together with naming preferences communicated by the contact, to display their names with respect to cultural and traditional norms and name formatting conventions.

The contact names rendered by the database system are then referenced by numerous stakeholders to assist in various customer relationship management activities:

- formally addressing the individual verbally
- leveraging informal/familiar verbal address when preferred
- properly pronouncing a name
- leveraging the appropriate formal/informal address in various written communications & marketing materials
- Leveraging the appropriate formal/informal address in business documents (quotes, contracts, service agreements, etc.) typically managed in a CRM system.

### Glossary of Terms

- Locale (Language / Country) In the scope of this database application, a "locale" is a combination of both language and country codes. To create a locale, we leverage the ISO 3166 standard for 2-character country codes, and 3-character language code (e.g. kat-ge, for Georgian, Georgia)
  - o References:
  - o <a href="https://www.iso.org/obp/ui/">https://www.iso.org/obp/ui/</a>
  - o https://en.wikipedia.org/wiki/List of ISO 639 language codes
- <u>ASCII</u> American Standard Code for Information Interchange. It is a character code where each individual bit represents a unique character.
  - o References:
  - o <a href="https://www.ascii-code.com/">https://www.ascii-code.com/</a>

- <u>Latin1</u> ISO/IEC 8859-1 ASCII-based standard character encodings, single-byte character encoding consisting of 191 characters from the Latin script.
  - References:
  - o https://www.iso.org/obp/ui/en/#iso:std:iso-iec:8859:-1:ed-1:v1:en
- <u>Unicode</u> A character encoding standard providing a unique number for every character.
  - o <a href="https://www.unicode.org/standard/WhatIsUnicode.html">https://www.unicode.org/standard/WhatIsUnicode.html</a>
- <u>CRM</u> The acronym "CRM" refers to Customer Relationship Management. Customer Relationship Management is the formal practice of managing a company's interactions with its current and potential customers. Companies leverage CRM software solutions to store information about their current accounts and customers, prospective accounts and customers, and to orchestrate and automate business workflows where the customer intersects with the company's products, services or support offerings.
  - o References:
  - o <a href="https://www.salesforce.com/crm/what-is-crm/">https://www.salesforce.com/crm/what-is-crm/</a>
- <u>IPA</u> The acronym "IPA" stands for the International Phonetic Alphabet. IPA is a phonetic notation system that uses symbols to represent each distinct sound in human spoken language.
  - o References:
  - o https://www.internationalphoneticalphabet.org/
- Given Name A name that precedes one's surname.
  - o References:
  - o https://www.merriam-webster.com/dictionary/given%20name
- Family Name A surname
  - o References:
  - o https://www.merriam-webster.com/dictionary/family%20name
- <u>Legal Alias</u> This refers to a registered name other than the given and family name that a single individual may be using for "doing business as" purposes.
- <u>Honorific</u> A class of grammatical forms used in speaking to or about a social superior.
  - References:
  - o <a href="https://www.merriam-webster.com/dictionary/honorific">https://www.merriam-webster.com/dictionary/honorific</a>
- <u>Dead Name</u> A name formerly owned by an individual that is no longer used by that individual in referring to themself. The use of dead names is to be avoided.
- **Genitive Pronoun** A pronoun used when indicating the pronoun has ownership over a subject.
  - o References:
  - o <a href="https://dictionary.cambridge.org/dictionary/english/genitive">https://dictionary.cambridge.org/dictionary/english/genitive</a>
- Nominative Pronoun A pronoun used when indicating the person is a subject of a verb.
  - References:
  - o <a href="https://dictionary.cambridge.org/dictionary/english/nominative">https://dictionary.cambridge.org/dictionary/english/nominative</a>
- <u>Particle</u> In the context of this database application, a particle refers to an individual component of a person's full name, specific to the chosen locale (language and country combination).
- Particle Order In the context of this database application, a particle order refers to the order of all particles making up the full component of a name. The particle order is used to organize each component of a name into the correct order with respect to the pre-defined order of the chosen locale (language and country combination).

### **High Level Business Requirements**

The Names system represents human personal names in a culturally aware way, suitable for use in a CRM. Naming conventions vary world-wide. Assumptions based on Western English-speaking culture often results in insensitive mangling of names.

The system provides a set of ISO639 locale-specific views of the underlying name. Each database view provides versions of a name for different applications, such as name to use in conversation, form of address in a business letter, familiar form for chat or other less-formal communication, and pronunciation guidance for all of them.

The expectation is that an account manager or similar front-end person encodes everything we know about a person's name, and the different database views produce locale-specific renderings.

### **Initial Scope**

The initial version of this database application will be limited to the following language and country combinations (i.e. locales):

- English, United States (en-us)
- Georgian, Georgia (kat-ge)

### **Business Rules**

- The Account Manager must gather the customer's country and language preferences (locales).
- The Account Manager captures all the components of the customer's name, titles appropriate to the locales.
- Customer email must be unique.
- For each enabled locale, the individual name components are stored in the database uniquely and will be reused / referenced for all contacts in that locale.
- The naming conventions must respect the communicated gender and pronoun preferences of a contact.
- If the contact does not wish to offer the required information (name, preferences, and locale), the system provides a set of "override" name fields that are used to render a default name in all locales.

### Key Stakeholders

- Customer
- Account Manager
- Customer service agents
- CRM application developers

### Functional requirements (Goals)

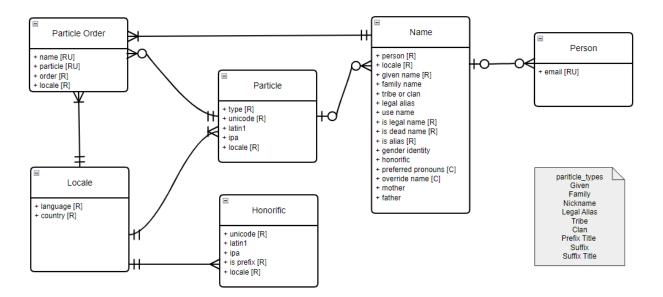
- Collecting name information:
  - Present a data collection form that can be integrated into a CRM contact name collection process.
- <u>Using name information:</u>
  - Present UI screens that format person name information according to ordering for the given locale. Names to be presented in multiple formats that serve as a reference for which name to use in specific cases (legal format, formal format, informal format, preferred name format, etc.)

### Non-Functional requirements

- The naming solution integrates with a prounounciation solution that will recieve the name information and provides an audio pronounciation.
- Symbols from the international phonetic alphabet will be used to represent the sounds and features that distinguish the proper pronounciation of the name in the database.
- To create a locale, the system uses the ISO 3166 standard for 2-character country codes, and 3-character language code (e.g. kat-ge, for Georgian, Georgia)

### **Data Modeling**

### **Conceptual Model**



### Data Requirements

Entity = Locale		
Attribute	Props	Description / Purpose
language	R	Language component of locale associated with a name
country	R	Country component of locale associated with a name

Entity = Particle		
Attribute	Props	Description / Purpose
Туре	R	Names of available components of names (i.e. Given, Family).
		Re-used across individual names in each locale.
Unicode	R	The unicode text for the name of the given particle type. Re-
		used across individual names in each locale.
Latin1		The Latin1 (ASCII) text for the name of the given particle type.
		Re-used across individual names in each locale.
ipa		The ipa phonetic notation for the name of the given particle
		type. Re-used across individual names in each locale.
locale	R	The unique country and language combination associated with
		a name.

Entity = Particle Order		
Attribute	Props	Description / Purpose
name	RU	The Name of a particle type
particle	RU	Maps to the specific particle in the particles table
order	R	The position of the particle in the overall order of a name.

locale	R	The unique country and language combination associated with
		a name and the ordering assigned to the name.

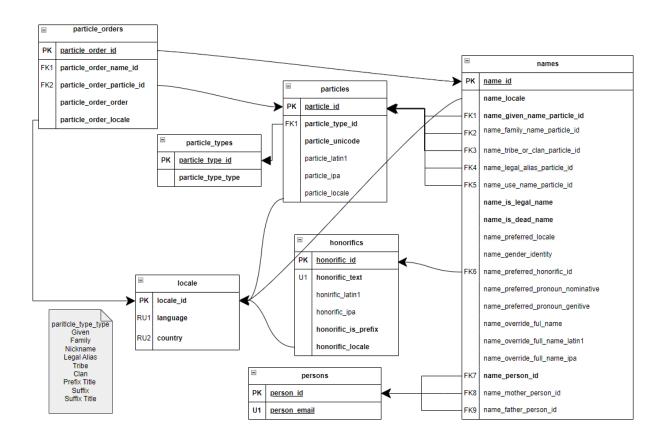
Entity = Honorific		
Attribute	Props	Description / Purpose
Unicode	R	The unicode text for the honorific text.
Latin1		The Latin1 (ASCII) text for the honorific text.
ipa		The ipa phonetic notation for the honorific text.
Is prefix	R	Binary flag indicating if an honorific is a prefix
locale	R	The unique country and language combination associated with
		the available list of honorifics.

Entity = Name		
Attribute	Pro ps	Description / Purpose
	μς	
Person	R	Refers to the unique person record in the person table.
Locale	R	The unique country and language combination associated with
		the name record.
Given Name	R	Refers to the particle text of type Given Name in the particle
		table.
Family Name		Refers to the particle text of type Family Name in the particle
		table.
Tribe or Clan		Refers to the particle text of type Tribe or Clan in the particle
		table.
Legal Alias		Refers to the particle text of type Legal Alias in the particle
		table.
Use Name		Refers to the particle text of type Preferred Name in the particle
		table (i.e. nickname).

R	Binary flag indicating if the name is a legal name for the person
	and should be used for business documents.
R	Binary flag indicating if the name is a dead name for the person
	and should not be used.
R	
	Text of preferred gender identity associated with a name.
	User-entered.
	Refers to the chosen honorific from the honorifics table.
С	Text of preferred pronouns associated with a name.
С	The full text of a name that should be used in all cases instead
	of other name entries for a person.
	Refers to a unique person ID for a person that is the current
	person record's mother. Will make inheritance of name
	information for a specific name possible in appropriate locales
	(future application versions).
	Refers to a unique person ID for a person that is the current
	person record's father. Will make inheritance of name
	information for a specific name possible in appropriate locales
	(future application versions).
	R R C

Entity = Person		
Attribute	Props	Description
email	RU	Unique email address for a single person in the database

### Logical model



### **Entities and Attributes**

Table	Column	Data Type	Relationship
honorifics	honorific_id	Int, not null	Primary Key
	honorific_text	nvarchar(50), not null	Unique Key
	honorific_latin1	varchar(50), null	
	honorific_ipa	nvarchar(50), null	
	honorific_is_prefix	Bit, not null	
	honorifi_locale_id	Int, not null	Unique Key
locales	locale_id	Int, not null	Primary Key
	locale_language	varchar(4), not null	Unique Key
	locale_country	varchar(4), not null	(combined)
names	name_id	Int, not null	Primary Key
	name_locale_id	Int, not null	Foreign Key
	name_is_legal_name	Bit, not null	
	name_is_dead_name	Bit, not null	
	name_preferred_locale_id	Int, null	
	name_gender_identity	varchar(10), null	
	name_preferred_honorific_id	Int, null	Foreign Key
	name_preferred_pronoun_nomi	varchar(50), null	
	natave		
	name_preferred_pronoun_genat	varchar(50), nulllegal	
	ive		
	name_override_full_name	Nvarchar(max), null	
	name_override_full_name_latin	Nvarchar(max), null	
	1		
	name_override_full_name_ipa	Nvarchar(max), null	
	name_given_name_particle_id	Int, not null	Foreign Key
	name_family_name_particle_id	Int, null	Foreign Key
	name_tribe_or_clan_particle_id	Int, null	Foreign Key
	name_legal_alias_particle_id	Int, null	Foreign Key
	name_use_name_particle_id	Int, null	Foreign Key
	name_person_id	Int, not null	Foreign Key
	name_mother_person_id	Int, null	Foreign Key
	name_father_person_id	Int, null	Foreign Key

Table	Column	Data Type	Relationship
particle_orders	particle_order_id	Int, not null	Primary Key
	particle_order_name_id	Int, not null	Foreign Key
	particle_order_particle_id	Int, not null	Foreign Key
	particle_order_order	Int, not null	
	particle_order_locale_id	Int, not null	Foreign Key
particle_types	particle_type_id	Int, not null	Primary Key
	particle_type_type	varchar(50), null	
particles	particle_id	Int, not null	Primary Key
	particle_type_id	Int, not null	
	particle_unicode	nvarchar(50), not null	
	particle_latin1	varchar(50), null	
	particle_ipa	Nvarchar(50), null	
	Particle_locale_id	Int, not null	Foreign Key
persons	person_id	Int, not null	Primary Key
	person_email	varchar(50), not null	Unique key

### **External Model**

### External Data Model

	v_eng_us
PK	v eng us person id
	v_eng_us_email
	v_eng_us_formal_name
	v_eng_us_formal_name_ipa
	v_eng_us_informal_name
	v_eng_us_informal_name_ipa
	v_eng_us_preferred_name
	v_eng_us_preferred_name_ipa
	v_eng_us_legal_name
	v_eng_us_legal_name_ipa
	v_eng_us_initials

	v_kat_ge
PK	v kat ge person id
	v_kat_ge_email
	v_kat_ge_formal_name
	v_kat_ge_formal_name_latin1
	v_kat_ge_formal_name_ipa
	v_kat_ge_informal_name
	v_kat_ge_informal_name_latin1
	v_kat_ge_informal_name_ipa
	v_kat_ge_nickname
	v_kat_ge_nickname_latin1
	v_kat_ge_nickname_ipa
	v_kat_ge_legal_name
	v_kat_ge_legal_name_latin1
	v_kat_ge_legal_name_ipa
	v_kat_ge_initials
	v_kat_ge_initials_latin1

# **Application Experience**



a search for contact

### Name Navigator

Home History FAQ

Name	Preffered Name	Email	Phone number	Country
Christopher Murphy	Chris	Chris@syr.edu	111-111-1111	us
Oluwaseyi Durosinmi-Etti	Shay	Shay@syr.edu	222-222-2222	us
Patrick Le	Pat	Pat@syr.edu	333-333-3333	us
La Monte Yarroll	Piggy	Piggy@syr.edu	444-444-4444	GE

Export ▼



### Name Navigator



<b>9</b>		Home Cli	ient Page Acco	unt Manager View	Q Help
Preferred Name					
Shay					
				Current Locale *	NG-US -
Preferred Name Shay					
Unicode		IPA		_	
Given Name* Oluwaseyi				$\oplus$	
Family name Durosinmi-Etti		IPA			
Email* Shay@syr.edu					
A STATE OF THE STA					
is Dead Name?*					
is Legal name?*					
is Legal Alias *					
Additional Info +					
Additional line + :					
Gender Identity Information					
Gender Identity Male	₩				
Pronoun (Nominative)	(multi-select)	<b>≡</b>			
Pronoun (Accusative)	(multi-select)	≡			
Pronoun (Genitive)	(multi-select)	=			
Prefix Mr	-	_			
Cultural Considerations Unicode		IPA			
tribe/clan					
Override					
Unicod	de	Latin1		IP	<b>\</b>





### Name Navigator

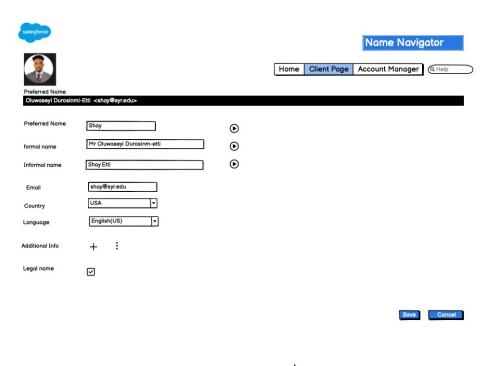
Home	Client Page	Account Manager View	Q Help
------	-------------	----------------------	--------

Preferred Name

Preferred Name				
			Current Locale *	KAT-GE 🔻
Preferred Name				
Given Name*	Unicode ლამონტი	Latin 1 Iamonti	IPA la'monti	$\square \oplus$
Given Name*	'ჰენრი	henri	henri	
Given Name*	პიგი Unicode	pigi Latin 1	pigi IPA	
Family name	იაროლი	iaroli	iaroli	
Email*				
is Dead Name?*				
is Legal name?*				
is Legal Alias *	☑			
Additional Info	+ :			
Gender Identity Info	mation			
Gender Identity	Male ▼			
Pronoun (Nominat	ve) He	(multi-select)		
Pronoun (Accusation	re) Him	(multi-select)		
Pronoun (Genitive)	His	(multi-select)		
Prefix	Mr +			
Cultural Considerati		Latin1	IPA	
tribe/clan	Unicode			7
Mother family name				_
Father family name				
Override	Unicode	Latin1	IPA	
Override				









### Mockup full page link:

### **Data Questions & Answers**

```
1059
            -- 1.) How many contacts (unique persons) in the database (eng us locale)
 1060
            -- used to track growth of the system
 1061
            select count(distinct(person_id)) from v_eng_us;
 Results
                Messages
        (No column name)
1
1062
       -- 2.) Show preferred names vs. active full name (eng_us locale)
 1064
       -- Who are the contacts/clients in the system?
       -- used to ensure preferred naming preferences are understood in account interactions
1065
1066
       select person_id, use_name_unicode + ':' + formal_name_unicode as preferred_name, full_name_unicode as complete_name from v_eng_us
1067
       where is_dead_name != 1;
 Results
        Messages
     person_id v preferred_name
                                  complete_name
                   Chris:Murphy
                                     Mr. Christopher Alan Murphy Jr.
                   La Monte:Yarroll
                                     Dr. La Monte Henry Piggy Yarroll esq.
     3
                   Eve:Yarroll
                                     Mrs. Eve Karenina Yarroll
                  Seyi:Durosinmi-Etti Mr. Oluwaseyi Olufemi Durosinmi-Etti
     4
```

```
1068
1069 -- 3.) Show use name vs. non-dead legal name for clients How many legal vs. non legal names?
1070 -- used to ensure legal names are used for formal documentation, agreements, etc.
1071 select person_id, use_name_unicode + ':' + formal_name_unicode as preferred_name, legal_name_unicode as legal_name from v_eng_us
1072 where is_dead_name != 1;
1073
```

	person_id 🗸	preferred_name 🗸	legal_name 🗸
1	1	Chris:Murphy	Christopher Alan Murphy Jr.
2	2	La Monte:Yarroll	La Monte Henry Piggy Yarroll
3	3	Eve:Yarroll	Eve Karenina Yarroll
4	4	Seyi:Durosinmi-Etti	Oluwaseyi Olufemi Durosinmi-Etti

```
-- 4.) Show preferred names and emails
-- 4.) Show preferred names and emails
-- How should we address contacts/clients for email marketing and system personalization?

select person_email, use_name_unicode as perferred_given_name, use_name_unicode + ' ' + formal_name_unicode as preferred_full_name from v_eng_us

where is_dead_name != 1;
```

	person_id 🗸	preferred_name 🗸	legal_name \	/
1	1	Chris:Murphy	Christopher Alan Murphy Jr.	
2	2	La Monte:Yarroll	La Monte Henry Piggy Yarroll	
3	3	Eve:Yarroll	Eve Karenina Yarroll	
4	4	Seyi:Durosinmi-Etti	Oluwaseyi Olufemi Durosinmi-Etti	i

```
1079 -- 5.) Show full name associated with email addresses
1080 -- How should we address contacts/clients for formal communications and engagements requiring introductions?
1081 select person_email, full_name_unicode from v_eng_us
1082 where is_dead_name != 1;
1083

Results Messages
```

# 

1	1	Chris:Murphy	Christopher Alan Murphy Jr.
2	2	La Monte:Yarroll	La Monte Henry Piggy Yarroll
3	3	Eve:Yarroll	Eve Karenina Yarroll
4	4	Seyi:Durosinmi-Etti	Oluwaseyi Olufemi Durosinmi-Etti

```
1083

1084 -- 6.) Show legal name associated with an email address.

1085 -- How should we address contacts/clients in formal legal documentation?

1086 select person_email, legal_name_unicode as legal_name from v_eng_us

1087 where is_dead_name != 1;

1088
```

	person_email 🗸	legal_name 🗸
1	cmurph66@syr.edu	Christopher Alan Murphy Jr.
2	piggy@cmu.edu	La Monte Henry Piggy Yarroll
3	baqaqi@gmail.com	Eve Karenina Yarroll
4	odurosin@syr.edu	Oluwaseyi Olufemi Durosinmi-Etti

```
1089 -- 7.) Show the full set of unique email addresses (eng_us locale).
1090 -- reviewed for data maintenance, data cleansing, and GDPR legal compliance
1091 select distinct(person_email) from v_eng_us;
1092
1093 -- 8.) Show all dead names (eng_us locale)
1094 -- this list can be reviewed to ensure all communications and touch points with the person
```

	person_email 🗸
1	baqaqi@gmail.com
2	cmurph66@syr.edu
3	odurosin@syr.edu
4	piggy@cmu.edu

```
-- 8.) Show all dead names (eng_us locale)
-- this list can be reviewed to ensure all communications and touch points with the person avoids the use of the dead name
select person_id, name_id, person_email, full_name_unicode as "dead_name - do not use" from v_eng_us where is_dead_name = 1;

1096
-- 9.) How many records lack a particle IPA?
```

	person_id 🗸	name_id 🗸	person_email 🗸	dead_name - do not use 🗸
1	3	3	baqaqi@gmail.com	Miss Eve Karenina Prastein

-- ruture versions or the application could integrate with an ipa service and auto-populate these records select \* from particles where particle\_ipa is null or particle\_ipa = '';

Res	ults Messages					
	particle_id 🗸	particle_type_id 🗸	particle_unicode 🗸	particle_latin1 🗸	particle_ipa 🗸	particle_locale_id 🗸
1	2	1	Christopher	Christopher	NULL	1
2	3	1	Alan	Alan	NULL	1
3	4	2	Murphy	Murphy	NULL	1
4	5	7	Jr.	junior	NULL	1
5	6	3	Chris	Chris	NULL	1
6	11	2	Yarroll	Yarroll		1
7	12	8	esq.	esquire	NULL	1
8	13	6	Miss	Miss	NULL	1
9	15	1	Karenina	Karenina	NULL	1
10	16	2	Prastein	Prastein	NULL	1
11	17	6	Mrs.	missus	NULL	1
12	23	1	Oluwaseyi	Oluwaseyi	NULL	1
13	24	1	Olufemi	Olufemi	NULL	1
14	25	2	Durosinmi-Etti	Durosinmi-Etti	NULL	1

```
1102
1103
                                   -- 10.) getting average amount of particles per name
1104 -- used to determine if the system is being used as intended.
1105
                                  -- can be used as a metric for marketing teams that maintain a % Complete for IPA entries
1106
                                   -- to ensure the particles being entered assist the team in properly personalizing
1107
                                  -- interactions with clients.
                                 \textbf{select avg}((\texttt{LEN(f.full\_name\_unicode}) \ - \ \texttt{LEN(REPLACE(f.full\_name\_unicode, ' ', '')) + 1)) \ as \ avg\_particle\_count \ from \ avg\_p
1108
1109
                                      (select full_name_unicode from v_eng_us) f;
1110
1111
```

avg_particle_count	~
4	

	person_email 🗸	short_formal_unicode 🗸
1	cmurph66@syr.edu	Mr. Murphy
2	piggy@cmu.edu	Dr. Yarroll
3	baqaqi@gmail.com	Miss Prastein
4	baqaqi@gmail.com	Mrs. Yarroll
5	odurosin@syr.edu	Mr. Durosinmi-Etti

	person_email 🗸	short_formal_unicode	~	short_formal_latin1	~	short_formal_ipa	~
1	piggy@cmu.edu	ბატონ ლამონტი		baton lamonti		baton la'monti	

### **Future Scaling Topics**

We plan to integrate AI technology to assist Customer Service agents in correctly pronouncing names, enhancing personalized service.

With Machine Learning adaptability the use of neural network and deep learning can give the software adaptability to learn subtle patterns and strategies.

### Conclusion & Reflections

We actively controlled scope to fit within our deadline

By starting and brainstorming ideas early we were able to pick a sufficient topic that we were all passionate about

By starting all the deliverables early and in parallel, we were able to delegate tasks evenly among the team.

By working on the conceptual and logical models together, we gained a great understanding of the project's structure.

We Learned how to parse a list to stored procedure

We were able to use our diverse and individual creativity to achieve a complex and enriched database

### **Additional Use Cases**

- HR system integration to assist HR managers with honoring cultural differences of employees
- Integration into a dual citizenship passport application process to respect name formats of one person across different locales.

- Integration into customer intelligence
- Cultural Sensitivity Training

### **Team Log**

### Meeting 1: April 28, 2024

#### **Discussions**

- Defined the **scope of work**, including the conceptual and logical models.
- Reviewed the **SQL syntax** for demonstration code.
- Selected **dummy locales**: eng\_us, Georgian, Russian, and Spanish.
- Explored real-life applications and scenarios for the database.
- Discussed the integration of various locales.

#### Tasks

- La Monte: Set up GitHub collaboration.
- Seyi: Create a OneDrive folder and develop a demo report.
- Chris: Review requirement documents and research mockup applications (screens).
- Seyi & Chris: Set up a Trello dashboard and research dummy names for the table.

### Meeting 2: May 1, 2024

### **Discussions**

- **Team c**ontinued development of the **logical model**.
- Team reviewed the Kablan dashboard and High-Level Business Requirements.

- La Monte: Updated the logical model.
- Chris: Created an entity-relationship table and added it to the draft paper.

### Meeting 3: May 12, 2024

#### **Discussions**

- Further development of the **logical model**.
- Seyi and La Monte collaborated on the conceptual model.

#### Tasks

- **Seyi**: Begin working on a PowerPoint presentation.
- Patrick & La Monte: Started writing SQL scripts for the database.
- **Patrick**: Write up-down script including creating all tables, removing all tables, primary/foreign keys, and verification of all tables

### Meeting 4: May 19, 2024

#### **Discussions**

- Full Team reviewed and signed off on the conceptual and logical models.
- Reviewed the SQL script prepared by Patrick.

### Tasks

- **Seyi**: Start assembling the presentation.
- Chris: Added the conceptual and logical models, glossary, document outline and table of contents to the final paper.
- Patrick & Seyi: Begin work on the mockup.
- La Monte: Finish the up-down SQL script.
- Patrick: Review up-down script and update changes made on the models to the code

### Meeting 5: May 24, 2024

#### **Discussions**

- Final review and approval of the **conceptual** and **logical models**.
- Review of the updated SQL script by **Patrick**.

#### Tasks

• Patrick & Seyi: Develop the user interface (UI).

### Meeting 6: May 26, 2024

#### **Discussions**

• **Team:** Reviewed First draft of the user interface in Balsamiq.

#### Tasks

- **Chris:** Lo-fi design drawing of the organization of the user interface for name entry. Validated against the logical design, the up/down script, and database schema.
- Patrick & Seyi: Update user interface screens from lo-fi and discussions.

### Meeting 7: June 2, 2024

#### **Discussions**

• **Team:** reviewed the Trello dashboard. Planned development tasks.

- **Seyi:** continued to build out the power point presentation and collaborated with the team to review the conclusion and lesson learned
- **Seyi**: Finalize user interface screens from lo-fi and discussions.
- Chris/La Monte: planned SQL name upsert collaborative development session
- Chris: Created "stub" of insert name stored procedure.
- La Monte: Researched and identified SQL solutions for inserting particles and the associated order of operations.
- La Monte: Trained Chris on GIT commands required to develop SQL in source control and with development branches.

Meeting 8: June 6, 2024

La Monte / Chris: Joint Development Session: insert name stored procedure

#### Tasks

SQL code to insert particles.

Meeting 9: June 7, 2024

La Monte / Chris: Joint Development Session: insert name stored procedure

#### Tasks

SQL code to insert person and particle orders.

Meeting 10: June 10, 2024

La Monte / Chris: Joint Development Session: insert name stored procedure

#### Tasks

- SQL code to insert names into the names table
- Created insert name stored procedure calls to insert test particles, particle orders, persons and names.
- Merged all insert name stored procedure code into the up/down script.

Meeting 11: June 10, 2024

La Monte / Patrick: Joint Development Session: views for the external model

- SQL code to create views for both active locales (eng-us, kat-ge).
- **Chris:** update report to include data requirements table for the conceptual model. Add functional business goals description.

### Meeting 12: June 15, 2024

### **Discussions**

 Team: Reviewed SQL Code for eng\_us view. Reviewed tasks outstanding. Identified 10 valuable queries.

#### Tasks

- La Monte: SQL code for kat\_ge view. Insert Kat\_ge test content.
- Patrick: Update eng\_us view with use name, create functions for ease of use for the views/queries. Insert test use\_name content into eng\_us.
- Chris / Seyi: Write queries. Integrate into the presentation & report.

### Meeting 13: June 16, 2024

#### **Discussions**

**Team:** Chris Seyi & Patrick brainstormed and wrote some data base queries La monte created additional views for the other locales

- Team: Seyi to add the questions to the PowerPoint slide and project paper
- La monte to create more Ipa and views
- Chris should complete the database queries reasoning