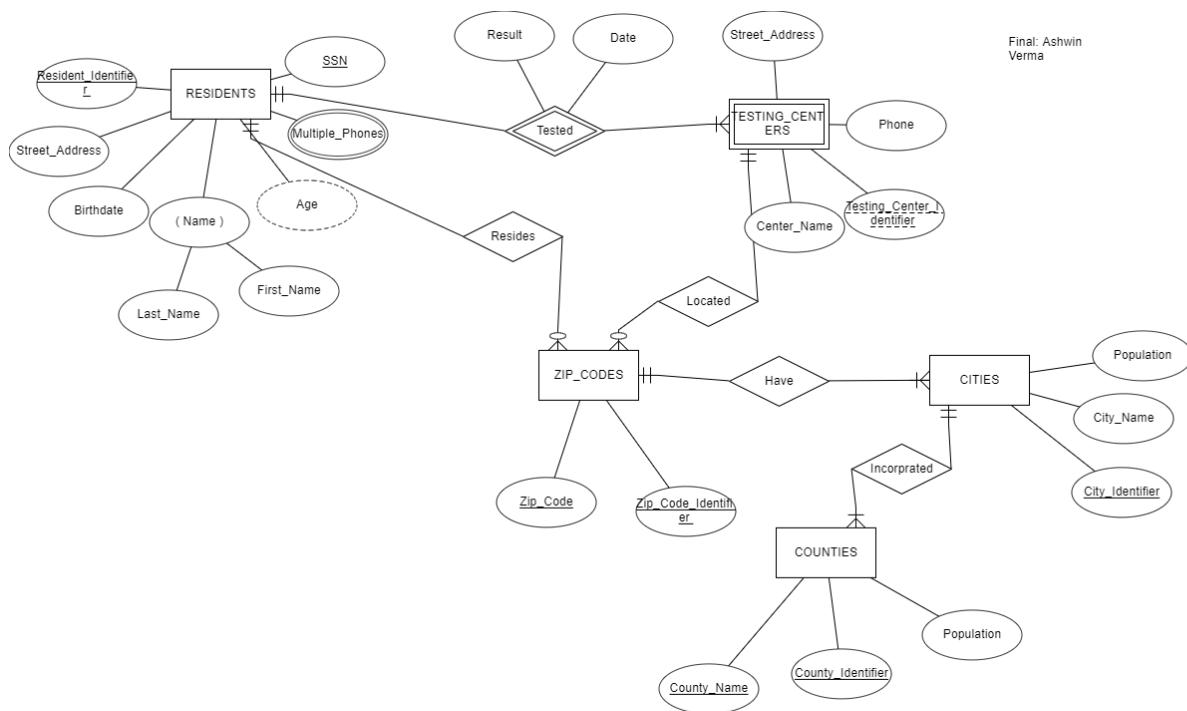


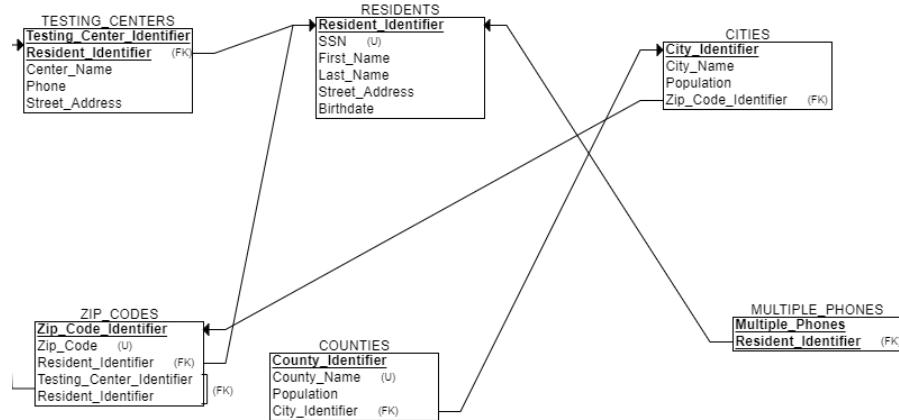
# CIS 4331 Final

**By: Ashwin Verma**

# Part 1



# Part 2



# Part 3

Github Link to SQL Implementation: [Code](#)

# Part 4

a.)

- |  |            |
|--|------------|
| AuthorID ---> AuthorLastName, AuthorFirstName, AuthorInstitution | Partial    |
| BookID ---> BookTitle, BookPrice, BookPublisher, PublisherCity   | Partial    |
| BookPublisher ---> PublisherCity                                 | Transitive |
| AuthorID, BookID ---> AuthorBookRoyalty                          | Full       |

b.)

Since there are no composite or multi valued attributes, the table is already in 1NF form

Part C and D.)

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AuthorID	AuthorLastName	AuthorFirstName	AuthorInstitution
A3	Savitch	Walter	University of California, San Diego
A5	Carmen	Isabel	Northumbra College
A6	Leserson	Matt	Microsoft Research
A7	Segevick	Robert	Pittsburgh University

**BOOK INFORMATION**

BookID	BookTitle	BookPrice	BookPublisher	PublisherCity
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B2	Data Structures and Algorithms in C	\$199.99	The MIT Press	Cambridge
B3	Algorithms Unlocked	\$16.19	The MIT Press	Cambridge
B4	Algorithms	\$70.49	Addison Wesley	Boston
B5	Algorithms in C++	\$77.50	Addison Wesley	Boston
B6	Algorithms in Java	\$10.98	Pearson	New York

**AUTHOR BOOK MIX**

AuthorID	BookID	AuthorBookRoyalty
A3	B1	\$15.99
A5	B2	\$3.45
A5	B3	\$1.62
A6	B2	\$5.68
A7	B4	\$3.5
A7	B5	\$7.5
A7	B6	\$7.5

Ashvin Verma

● = primary key

● = Foreign key

### PUBLISHING INFORMATION

d.	Book Publisher	Publiser/City
B1	Pearson	New York
B2	The MIT Press	Cambridge
B3	Addison - Wesley Professional	Boston

### BOOK INFORMATION

BookID	BookTitle	BookPrice	BookPublisher
B1	Java: An Introduction...	\$159.99	Pearson
B2	Introduction to Algorithms	\$109.32	The MIT Press
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