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SCHOOL OF ELECTRICAL AND COMPUTER
ENGINEERING

Database Management System project

GROUP-2

Phase-1

Title: voters' Registration

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Conceptual Design for the Database of voters' Registration

Entity Citizen

The database will store each Citizens information that have the right to vote their party candidates in our database system citizens have their own license identification number.

For each **citizen**, the DB keeps a record of

License ID

First name

Last name

Middle name

Sex

Age

Birth date

Birth place

Citizen choice

Therefore, these will be attributes for the entity Citizen.

Citizen

Pk	- <u>license ID</u>
	-first name
	-middle name
	-last name
	-age
	-sex
	-birth date
	-birth place
	- citizen choice

And in our entity citizen the attribute license number is the primary key for these attribute because any citizen cannot have the same Id number.

Entity: citizen

One of the entity for voters' registration database system is citizen the one who can register to vote.

o Attributes: The entity citizen has attributes that are used to define the citizen . citizen's attributes are license ID, first name, middle name, last name, sex, age, birth date, birth place and citizen choice.

- license Id number: it contains the identification number of the citizen. It is the primary key of the attributes.

- first name: it contain the name of the citizen and it is simple attribute.

-middle name: it contains the father name of the citizen and it is a simple attribute.

-last name: it contain the grandfather's name of citizen and it is a simple attribute.

▪ Sex: it indicates us that the citizen is either male or female and it is simple attribute.

▪ Birth date: holds the citizen date of birth and it is composite attribute composed of Data, Month and Year.

Entity: Additional information

The second entity of our database system is " Additional information" which contains additional information about the citizen.

Additional information
-email address -phone number

- **Attributes:** The entity Additional has attributes that are used to give more information about the citizen. Additional information's attributes are email address and phone number. The phone number is the primary key.
- **Phone No:** This is a simple attribute it holds the phone number of the citizen.
- **Email address:** this is also a simple attribute that holds the email address of the citizen.

Relations

We can extract a relation between Citizen and additional information since the citizen has phone number and email address. Their relation is one to two.

Entity: Job description

This one entity that uses us in the database system that tells us the job position of the citizen it contains the attributes:

- **Job Id:** this attribute contains the identification number of the citizen in his work place and this is a simple attribute.
- **Company name:** it is a simple attribute that contain the name of the company of the citizen.
- **Position:** it is a simple attribute that tells the working level of the citizen.

Entity: candidates

This is one of the entity that tells us candidates that going to be elected by the citizen

Candidates

<u>-Candidate ID</u>
-candidate name
-candidate logo

- **Attributes:** The entity candidates have attributes that are used to give more information about the candidate. Additional information's attributes are candidate id, candidate name and candidate logo.
- **Candidate ID:** this is a simple attribute that contains the ID number of the candidate. This is the primary key of the attribute.
- **Candidate name:** it is the name of the party that going to be elected by the citizen. It is a simple attribute.
- **Candidate logo:** it is the unique logo or identification item of the candidate. It is a simple attribute.

Entity: voting status

This entity contains the voting status of citizen

Voting status
<u>-voters' ID</u>
-registration date
-registration number
- candidate name

-Attributes: The entity voting status have attributes that are used to give more information about the voting status of the citizen it contains the attributes:

-voters' ID: it is a simple attribute that contain the id number of voters' and it is a primary key.

-**Registration date:** it contains the date of the registration and it is composite attribute composed of Data, Month and Year.

-**Registration number:** it holds the date of the registration of the voters'(citizen). It is a simple attribute.

- **candidate name:** is the name of the candidate party. It is a simple attribute.

Entity: Address

one of the entity of our database system it holds the living address of the citizen(voters')

Address
- <u>address Id</u>
-region
-sub city
-wereda
- House number

-**Attributes:** The entity address has attributes that are used to give more information about the voting voter it contains the attributes:

-**Address id:** it is the address number of the address of the voters'. It is a simple attribute.

And this a primary key of the attribute.

-**Region:** it holds the living region of the voters'. This is a simple attribute.

- **sub city:** it holds the sub city of the voters' . it is the simple attribute

- **wereda**: it holds the wereda number of the voter. It is a simple attribute.
- **house number**: it holds the house number of the voters'. It is a simple attribute.

Entity: voting center

One of the entity for voters' registration database system is voting which tells where the voters' will vote.

Voting center
- <u>voting center Id</u>
-Voting center name

The voting center entity contain the attribute

-voting center Id: it holds the id number of the voting center and it is a simple attribute.

--voting center name: it holds the name of the center. It is assimple attribute.

Entity: Educational level

This is one of the entity of the voters' registration database system.

Educational level
-ID
-description
-school name

The educational level entity contains the attributes:

-ID: these contains the educational certificate id number. It is simple attribute.

- **description**: this contains the educational descriptions or status of the voters’.

-**School name**: contains the name of the school of voters’. It is a simple attribute.

Entity: criminal status

This is one of the entity of the voters’ registration database system.

Criminal status
- <u>crime ID</u>
-crime type
-crime date
-crime descriptions

-**Attributes**: The entity criminal status has attributes that are used to give more information about the voters’ criminal status it contains the attributes:

- **Crime ID**: is the id number crime. This is a simple attribute.

-**crime type**: is the attribute that holds the type of the crime.

It is a simple attribute.

-**crime date**: it holds the date of the crime has recorded. It is a composite attribute is holds date, month and year.



