Data Dictionary
University of Iowa
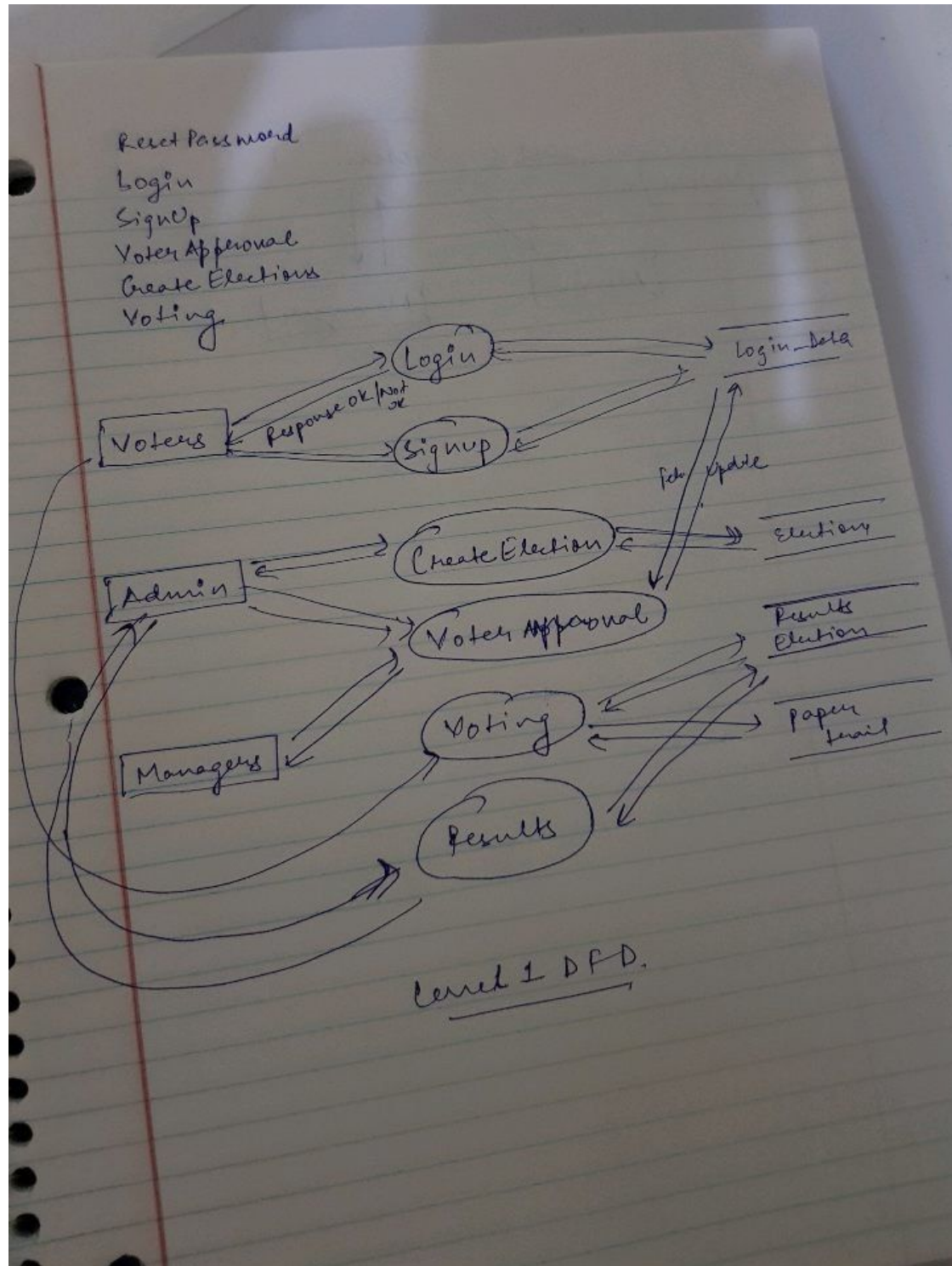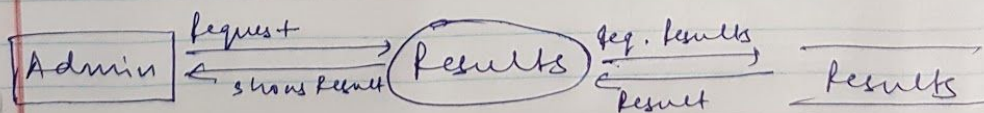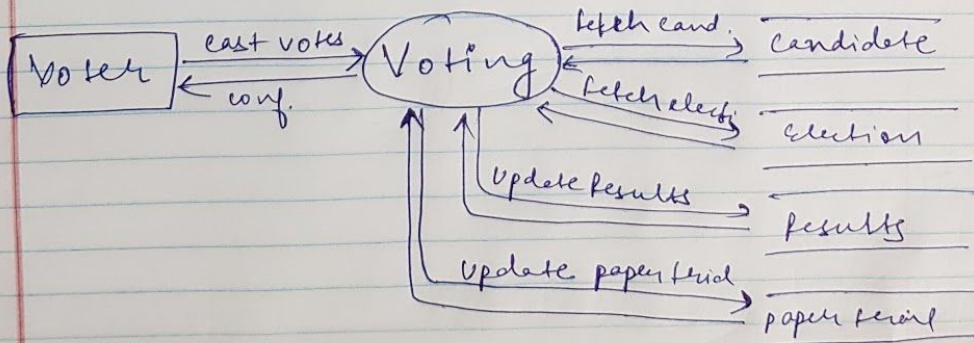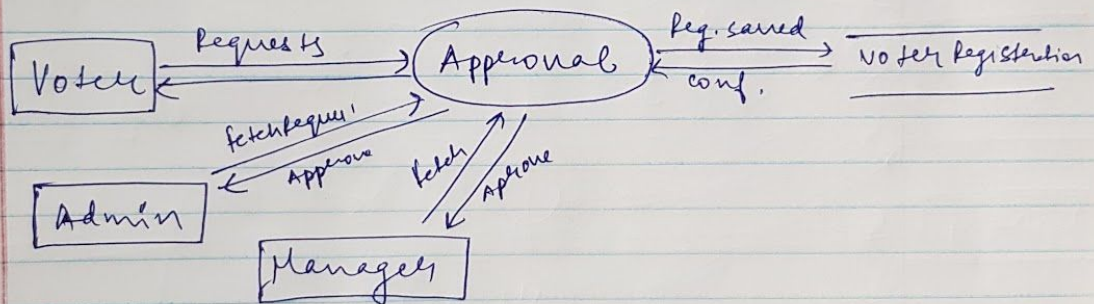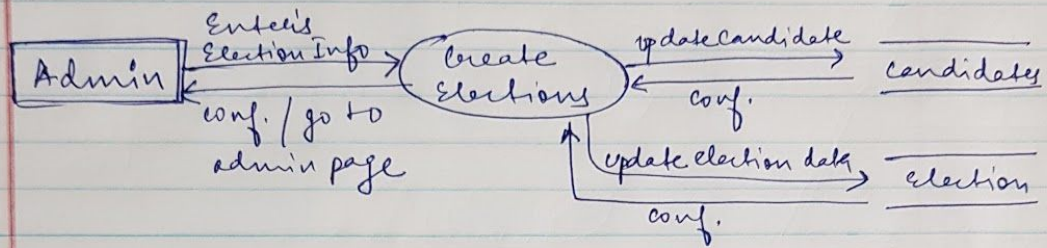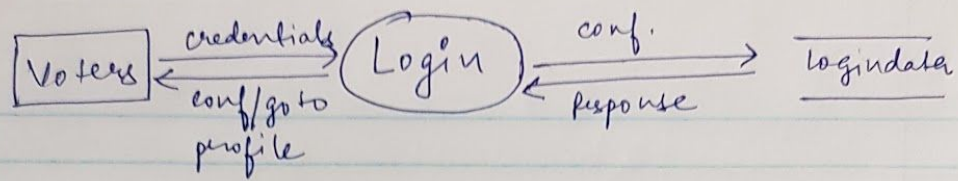
Creation Date: April 19, 2018
Plan Start Date: February 19, 2018
Plan Expiration Date: April 30, 2018

Table of Contents

1 Data Flow

Level 1 DFD.

Voters → credentials → (Login) → conf. → logindata
Voters ← conf/goto profile ← (Login) ← response ← logindata

Admin → Enter's Election Info → (Create Elections) → update candidate → candidate
Admin ← conf./goto admin page ← (Create Elections) ← conf. ← candidate
(Create Elections) → update election data → election
conf.

Voter → Requests → (Approval) → reg. saved → voter registration
Voter ← ← (Approval) ← conf. ← voter registration
fetchRequest ← Approve → Admin
fetch → Approve → Managers

Voter → cast votes → (Voting) → fetch cand. → Candidate
Voter ← conf. ← (Voting) ← fetch elect. → Election
(Voting) → Update results → results
(Voting) → Update paper trail → paper trail

Admin → Request → (Results) → req. results → results
Admin ← shows Result ← (Results) ← Result ← results

2 Data Elements

Primary Name	Use-Case	Data Type	Required?	Accepts Null Value?
Username	Login_data Voter_registration	varchar(255)	Y	N
Password	Login_data	varchar(255)	Y	Y
Firstname	Login_data Candidate	varchar(255)	N	Y
Lastname	Login_data Candidate	varchar(255)	N	Y
Priviledge	Login_data	varchar(255)	N	Y
Reset_Token	Login_data	varchar(255)	N	N
Zip_code	Precinct Voter_Registration	varchar(255)	Y	N
Precinct_ID	Precinct	varchar(255)	Y	Y
State	State_Geography Voter_Registration Election	varchar(255)	N	N
County	State_Geography	varchar(255)	N	N
City	State_Geography Voter_Registration	varchar(255)	N	N
Date_Of_Birth	Voter_Registration			
Approved	Voter_Registration	varchar(255)	N	N
ID_Number	Voter_Registration	varchar(255)	N	N
Election_ID	Ballots Election	varchar(255)	N	N
Election_Type	Election	varchar(255)	N	N
Party	Candidate	varchar(255)	N	N
Precinct	Candidate Ballots	varchar(255)	N	Y
Position	Candidate	varchar(255)	N	N

State_Date	Election	datetime(6)	N	N
End_Date	Election	datetime(6)	N	N

3 Data Stores

3.1 Files

- Controllers
    - AdminControlller
    - ElectionController
    - HomeController
    - MailGenerator
    - PrecinctController
- Models
    - Ballots
    - Candidate
    - Election
    - LoginData
    - Precinct
    - Search
    - StateGeography
    - UserID
    - VoterRegistration
    - VoterVerification
- Views
- MySQL
- Stylesheets
    - Bootstrap
    - Custom
    - Main
    - Webflow

3.2 Tables

- Precinct
    - Zip
    - Precinct_ID
- Voter_Registration
    - Username
    - Address

- City
  - State
  - Zip_Code
  - Date_Of_Birth
  - Social_Security
  - ID_Number
  - Approved
- Login_Data
  - Username
  - Password
  - Conf_Password
  - Firstname
  - Lastname
  - Priviledge
  - Reset_token
- Election
  - Election_ID
  - Election_Type
  - State
  - Start_Date
  - End_Date
- Candidate
  - Firstname
  - Lastname
  - Party
  - Precinct
  - Election_ID
  - Position
- Ballot
  - Precinct
  - Election_ID
- State_Geography
  - State
  - Zip
  - County
  - City

4 Resources

https://www.tutorialspoint.com/software_engineering/software_analysis_design_tools.htm