# SE305 COURSE PROJECT FINAL REPORT

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## Contents



## Abstract

With the developing ofacknowledgement.

## 1 MOTIVATION

Regularly, individuals have

## 2 ER Models

Our system is

## 3 Table Designs

Our final design contains 9 tables. Reference information is not stored in our tables, while all other information are stored. The design of our tables is elaborated below:

### 3.1 entity

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    entity` (
  `serial_id` BIGINT(32) NOT NULL
     AUTO_INCREMENT,
  `entity_id` VARCHAR(32) NOT NULL,
  `entity_language` VARCHAR(16) NOT NULL
     ,
  `entity_type` VARCHAR(16) NULL DEFAULT
      NULL,
  `entity_text` VARBINARY(255) NULL
     DEFAULT NULL,
  PRIMARY KEY (`serial_id`),
  INDEX `EID` (`entity_id` ASC),
  INDEX `ELANG` (`entity_language` ASC),
  INDEX `ETYPE` (`entity_type` ASC))
ENGINE = InnoDB
```

### 3.2 description

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    description` (
  `serial_id` BIGINT(32) NOT NULL
     AUTO_INCREMENT,
```

```
  `entity_id` VARCHAR(32) NOT NULL,
  `desc_language` VARCHAR(8) NULL,
  `desc_text` VARBINARY(255) NULL,
  PRIMARY KEY (`serial_id`),
  INDEX `EID` (`entity_id` ASC),
  INDEX `DLANG` (`desc_language` ASC))
ENGINE = InnoDB
```

### 3.3 mainsnak

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    mainsnak` (
  `snak_id` VARCHAR(64) NOT NULL,
  `entity_id` VARCHAR(32) NOT NULL,
  `property_id` VARCHAR(32) NOT NULL,
  `serial` INT(4) NOT NULL,
  `claimtype` VARCHAR(32) NULL DEFAULT
      NULL,
  `snaktype` VARCHAR(32) NULL DEFAULT
      NULL,
  `datatype` VARCHAR(32) NULL DEFAULT
      NULL,
  `rank` VARCHAR(32) NULL DEFAULT NULL,
  PRIMARY KEY (`snak_id`),
  INDEX `EID` (`entity_id` ASC),
  INDEX `PID` (`property_id` ASC),
  INDEX `CTYPE` (`claimtype` ASC),
  INDEX `STYPE` (`snaktype` ASC),
  INDEX `DTYPE` (`datatype` ASC))
ENGINE = InnoDB
```

### 3.4 datavalue_string

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    datavalue_string` (
  `snak_id` VARCHAR(64) NOT NULL,
  `value` VARBINARY(255) NULL DEFAULT
      NULL,
  PRIMARY KEY (`snak_id`))
ENGINE = InnoDB
```

### 3.5 datavalue_time

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    datavalue_time` (
  `snak_id` VARCHAR(64) NOT NULL,
  `time` VARCHAR(64) NULL DEFAULT NULL,
  `timezone` VARCHAR(32) NULL DEFAULT
      NULL,
  `before` VARCHAR(32) NULL DEFAULT NULL
      ,
  `after` VARCHAR(32) NULL DEFAULT NULL,
  `precision` INT(8) NULL DEFAULT NULL,
  `calendarmodel` VARCHAR(255) NULL
      DEFAULT NULL,
  PRIMARY KEY (`snak_id`))
ENGINE = InnoDB
```

### 3.6 datavalue_globecoordinate

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    datavalue_globecoordinate` (
  `snak_id` VARCHAR(64) NOT NULL,
  `latitude` FLOAT NULL DEFAULT NULL,
  `longitude` FLOAT NULL DEFAULT NULL,
  `altitude` FLOAT NULL DEFAULT NULL,
  `precision` FLOAT NULL DEFAULT NULL,
  `globe` VARCHAR(255) NULL DEFAULT NULL
      ,
  PRIMARY KEY (`snak_id`))
ENGINE = InnoDB
```

### 3.7 datavalue_quantity

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    datavalue_quantity` (
  `snak_id` VARCHAR(64) NOT NULL,
  `amount` VARCHAR(64) NULL DEFAULT NULL
      ,
  `upperBound` VARCHAR(64) NULL DEFAULT
      NULL,
  `lowerBound` VARCHAR(64) NULL DEFAULT
      NULL,
  `unit` VARCHAR(64) NULL DEFAULT NULL,
  PRIMARY KEY (`snak_id`))
ENGINE = InnoDB
```

### 3.8 datavalue_wikibase

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    datavalue_wikibase` (
  `snak_id` VARCHAR(64) NOT NULL,
  `id` VARCHAR(32) NULL DEFAULT NULL,
  PRIMARY KEY (`snak_id`))
ENGINE = InnoDB
```

### 3.9 qualifier

Table schema:

```
CREATE TABLE IF NOT EXISTS `wikidata`.`
    qualifier` (
  `serial_id` BIGINT(32) NOT NULL
      AUTO_INCREMENT,
  `hash` VARCHAR(64) NULL DEFAULT NULL,
  `snaktype` VARCHAR(32) NULL DEFAULT
      NULL,
  `property_id` VARCHAR(32) NULL DEFAULT
      NULL,
  `datatype` VARCHAR(32) NULL DEFAULT
      NULL,
  INDEX `STYPE` (`snaktype` ASC),
  INDEX `PID` (`property_id` ASC),
  INDEX `DTYPE` (`datatype` ASC),
  PRIMARY KEY (`serial_id`))
ENGINE = InnoDB
```

## 4

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## 5 ACKNOWLEDGEMENT

Our projec