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| A picture of a winding road and trees  Adventure time Academy  An application design documentation for this daycare. | Abstract  [Draw your reader in with an engaging abstract. It is typically a short summary of the document. When you’re ready to add your content, just click here and start typing.]  Angelo Angel  [Course title] |

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# Database Design

A screenshot of a computer code

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## Student

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### Business Rules

The student is a kindergartener. Most students must be between 4 – 6 years of age to be enrolled. A constraint is placed on student gender attribute where students are identified by male or female. Another restriction is placed on student state which only involves the 50 states from the United States. At the same time, student status is only restricted to a few values: **active**, **inactive**, **suspended**, **graduated**, **pending enrollment**, and **on** **hold**.

### Entity Relationships

**Student medical record** is a subset of the student entity. Here, the relationship is that a student may have many medical records, while a student medical record must be tied to a student. The medical type attribute only allows 2 values: **medical condition** and **allergy**. This identification determines the rest of the information for that instance medical record, meaning that a student may have many medical records. For that instance of medical record is accompanied by an information of the recent doctor associated with that medical record.

**Student vaccine** is an associative table emerged from student and vaccine tables. There’s a many-to-many relationship between both, hence the birth of student vaccine table. It is a must that a student be vaccinated, otherwise, they’ll be put on hold after a successful enrollment. The vaccination statusonly allows a list of values: **unvaccinated**, **vaccinated**, **exempt**, and **expired**. There are a couple of vaccinations that must be taken by a student. If not taken, they will remain on hold after enrollment unless exempted due to medical restrictions. This instance of student vaccine is accompanied by an information of the doctor who’s responsible for the student’s vaccination.

**Student discipline record** is another entity subset of student table where it records an impactful incident that has happened to the student. Not all students are expected to have a discipline record so it’s possible a student may never have a disciple record.

**Student guide** is an associative table between student and guide entities, since there’s a many-to-many relationship between both. A student must have at least one registered guide. For instance, a mother and father of a student can register as a guide for a particular student. The relationship attribute only allows a list of values: **parent, guardian,** and **relative**.

**Student assignment** is another associative table between student and assignment entities. A student may have many assignments as an assignment must be assigned to many students.

**Student class** is another associative table between student and class entities. A student may enroll in many classes, while a class may be assigned to a student. The enroll status attribute allows only a list of values: **enrolled, completed, pending,** and **dropped**.

**Contact information** is a subset of the student entity which lists a handful of methods to contact people associated with the student. As the name suggests, the email or phone attribute only accepts two values: **email** or **phone**. On the application side, once a parent puts their contact information in a form and submits it, their information must automatically be reflected to this table.

## Account

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### Business Rules

The account entity is responsible for storing account information of either an employee or guide. Each account username must be unique.

### Entity Relationships

**Guide** is a subset of account which represents the guide associated with students. Like student state, guide state only accepts a list of states in the United States. The account id in an instance of guide must be unique to maintain one to one relationship.

**Employee** is another subset of the account entity which represents the workers in the daycare. Employee state should be self-explanatory at this point. Employee status accepts only a list of values: **active, terminated,** and **on leave.** Employee role also accepts only a life of values: **principal, administrator, teacher, nurse, custodian, cook, receptionist, volunteer, it support, security officer, director,** and **hr manager**. Like guide entity, account id associated with an instance of employee must be unique to enforce a one-to-one relationship with the account.

**Order** is an entity that is placed by an account. An account may place many orders while an order is placed by an account. Order status accepts only a list of values: **ready, completed, returned,** and **failed**. Payment method also only accepts a list of values: **debit, credit, cash,** and **PayPal**.

**Product** is an entity that a customer may buy. A customer may place an order with many products and each product can be bought by many customers. Product category involves: **tuition fee**, **supplies,** and **clothing**. **Tuition fee** involves **fees** involving the enrollment of student in the school such as meal plan, enrollment fee, etc. **Clothing** involves mainly uniforms, and **supplies** are any other inventory items that a customer may want to buy directly from the daycare.

## Employee

A diagram of a company

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### Business Rule

Refer to the account section.

### Entity Relationships

**Employee medical record** and **employee vaccine** are the same as **student medical record** and **employee vaccinee** respectively.

An **employee** may teach many classes, a class is taught by an employee. Teacher employees usually oversee this relationship.