SOFTWARE GEMS

S Science
A Art
s Social Science

1234 Rob Brown

En English
Ph Physics
Mt Maths
Ch Chemistry
Ec Economics
Ac Accounting

Hosts

Comprises

Location · Country · Title · Religion · Examination · State · Gender · Person · Category · Subject

Progresses To · Constrains · Comprises · Fulfils

Registrant — 1234 S

Attracts

Category Subject
S En
S Mt
S Ph
S Ch
A En
A Mt
A Ec
A Ac

Presents For

Candidate — 1234 S

Produces · Is Examined For

Examination Result
1234 S En A
1234 S Mt B
1234 S Ph HD
1234 S Ch C

Predicate (Relevant, not All)

```
Candidate is dependent on, and identified by, Registrant
    Candidate is a presentation of 1 Registrant
    Candidate is uniquely identified by ( CandidateNo )
    Candidate produces 1-to-n ExaminationResults

Category is independent
    Category is uniquely identified by ( CategoryCode )
    Category comprises 1-to-n Subjects
    Category constrains 1-to-n Registrants

CategorySubject is dependent on, and identified by, Category
    CategorySubject is a constituent of 1 Category
    CategorySubject is dependent on, and identified by, Subject
    CategorySubject is a fulfilment of 1 Subject
    CategorySubject is uniquely identified by ( CategoryCode, SubjectCode )
    CategorySubject is examined for 1-to-n ExaminationResults

Examination is dependent on, and identified by, Location
    Examination is hosted by at 1 Location
    Examination is uniquely identified by ( LocationCode, DateTime )
    Examination attracts 1-to-n Registrants

ExaminationResult is dependent on, and identified by, Examination
    ExaminationResult is a product of 1 Examination
    ExaminationResult is dependent on, and identified by, CategorySubject
    ExaminationResult is an examination of 1 CategorySubject
    ExaminationResult is uniquely identified by ( CandidateId, CategoryCode, SubjectCode )

Location is independent
    Location is primarily identified by ( LocationCode )
    Location hosts 1-to-n Examination

Person is independent
    Person is primarily   identified by ( PersonNo )
    Person is alternately identified by ( NameLast, NameFirst, Initial, BirthDate, BirthPlace, BirthCountry )
    Person progresses to 1 Registrant

Registrant is dependent on, and identified by, Person
    Registrant is a progression of 1 Person
    Registrant is dependent on, and identified by, Category
    Registrant is constrained to 1 Category
    Registrant is uniquely identified by ( RegistrantNo )
    Registrant presents for 1 Examination

Subject is independent
    Subject is uniquely identified by ( SubjectCode )
    Subject fulfils 1-to-n Categories
```
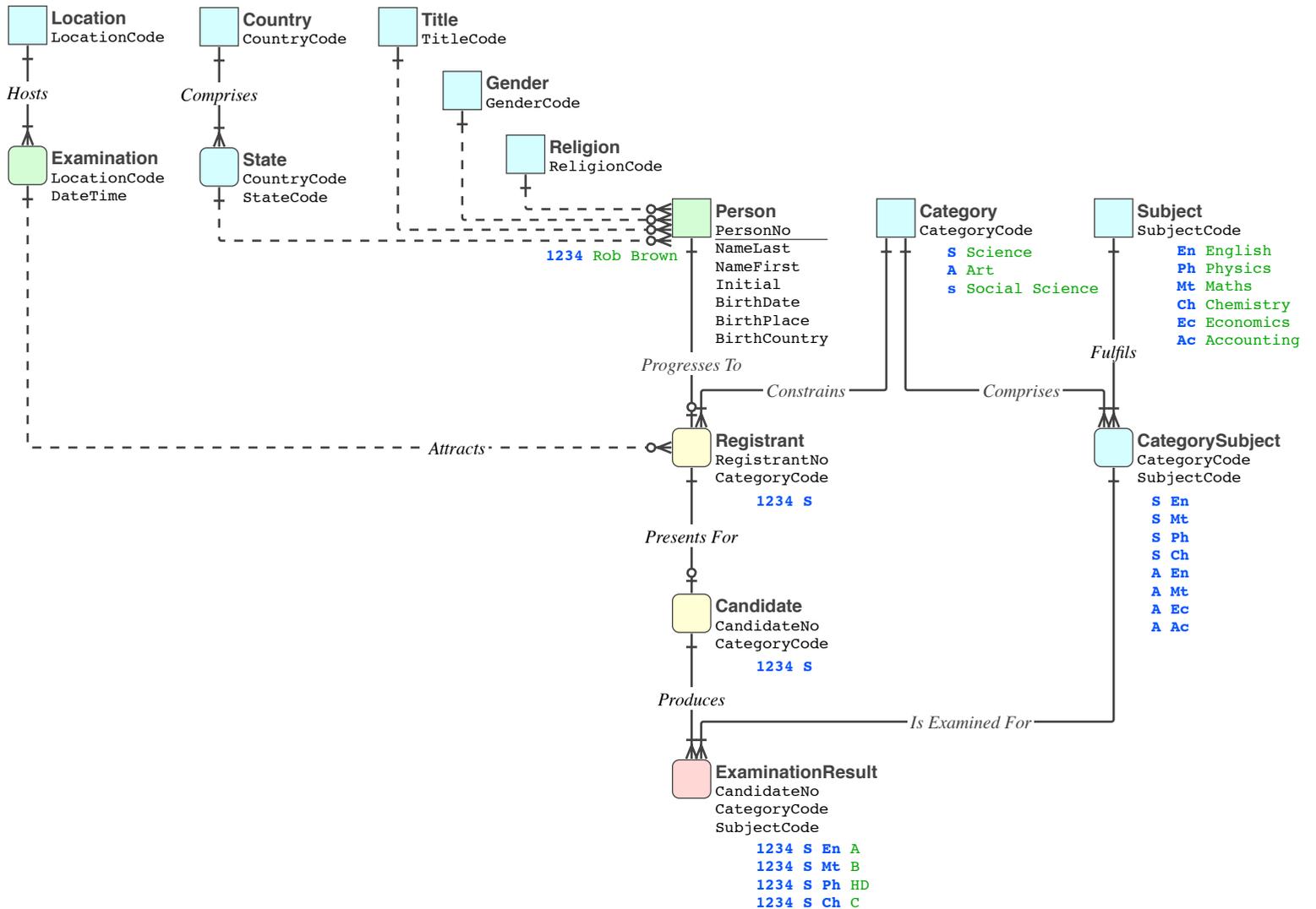
Entity Type

	Reference
	Identifying/Major
	Identifying
	Transaction
	TransactionDetail
	History, Audit

IDEF1X Notation

SOFTWARE GEMS

Location
LocationCode

Country
CountryCode

Title
TitleCode

Hosts

Comprises

Gender
GenderCode

Examination
LocationCode
DateTime

State
CountryCode
StateCode

Religion
ReligionCode

Person
PersonNo
NameLast
NameFirst
Initial
BirthDate
BirthPlace
BirthCountry

1234 Rob Brown

Category
CategoryCode
S Science
A Art
s Social Science

Subject
SubjectCode
En English
Ph Physics
Mt Maths
Ch Chemistry
Ec Economics
Ac Accounting

Progresses To

Constrains

Comprises

Fulfils

Attracts

Registrant
RegistrantNo
CategoryCode

1234 S

CategorySubject
CategoryCode
SubjectCode
S En
S Mt
S Ph
S Ch
A En
A Mt
A Ec
A Ac

Presents For

Candidate
CandidateNo
CategoryCode

1234 S

Produces

Is Examined For

ExaminationResult
CandidateNo
CategoryCode
SubjectCode

1234 S En A
1234 S Mt B
1234 S Ph HD
1234 S Ch C

Predicate (Relevant, not All)

```
Candidate is dependent on, and identified by, Registrant
    Candidate is a presentation of 1 Registrant
    Candidate is uniquely identified by ( CandidateNo )
    Candidate produces 1-to-n ExaminationResults

Category is independent
    Category is uniquely identified by ( CategoryCode )
    Category comprises 1-to-n Subjects
    Category constrains 1-to-n Registrants

CategorySubject is dependent on, and identified by, Category
    CategorySubject is a constituent of 1 Category
    CategorySubject is dependent on, and identified by, Subject
    CategorySubject is a fulfilment of 1 Subject
    CategorySubject is uniquely identified by ( CategoryCode, SubjectCode )
    CategorySubject is examined for 1-to-n ExaminationResults

Examination is dependent on, and identified by, Location
    Examination is hosted by at 1 Location
    Examination is uniquely identified by ( LocationCode, DateTime )
    Examination attracts 1-to-n Registrants

ExaminationResult is dependent on, and identified by, Examination
    ExaminationResult is a product of 1 Examination
    ExaminationResult is dependent on, and identified by, CategorySubject
    ExaminationResult is an examination of 1 CategorySubject
    ExaminationResult is uniquely identified by ( CandidateId, CategoryCode, SubjectCode )

Location is independent
    Location is primarily identified by ( LocationCode )
    Location hosts 1-to-n Examination

Person is independent
    Person is primarily   identified by ( PersonNo )
    Person is alternately identified by ( NameLast, NameFirst, Initial, BirthDate, BirthPlace, BirthCountry )
    Person progresses to 1 Registrant

Registrant is dependent on, and identified by, Person
    Registrant is a progression of 1 Person
    Registrant is dependent on, and identified by, Category
    Registrant is constrained to 1 Category
    Registrant is uniquely identified by ( RegistrantNo )
    Registrant presents for 1 Examination

Subject is independent
    Subject is uniquely identified by ( SubjectCode )
    Subject fulfils 1-to-n Categories
```

Entity Type

	Reference
	Identifying/Major
	Identifying
	Transaction
	TransactionDetail
	History, Audit

IDEF1X Notation