SMARTERAPP SPECIFICATION

for

ART STUDENT API

Authored by
Fairway Technologies, Inc.

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Revision History

Version	Revision Description	Author/Modifier	Date
1.0	Initial Release	Jeff Treuting (Fairway)	July 18, 2016

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Purpose

The purpose of this document is to provide details on the ART Student API that allows student records to be created, updated, and deleted. This API is externally available and requires authentication via OAuth 2.0. Student data can be submitted individually or via job batches that are processed asynchronously.

This document describes the student data model, transport protocols and API endpoints available for managing students via this API hosted by the ART application.

Student Data Dictionary

The following fields represent a student entity within the Administration and Registration Tools (ART) application. The Student API expects a student object to be represented as follows:

Field Name	Description	Accepable Values	Reference
ssid	State-assigned student identifier (SSID)	MaxLength: 30 characters REQUIRED	
externalSsid	Alternative state-assigned student identifier. If a state chooses not to share its students' SSIDs with consortium members, ART provides this number instead.	MaxLength: 50 characters REQUIRED	
stateAbbreviation	State in which the student attends school	Any two-letter state abbreviation plus the following: AA (Armed Forces Americas), AE (Armed Forces Africa, Canada, Europe and Mideast), AP (Armed Forces Pacific), TS (Test State), OT (Other) MaxLength: 2 characters REQUIRED	
districtIdentifier	Identifier for the district related to the student	Alphanumeric characters of an existing district ID MaxLength: 30 characters	
institutionIdentifier	Identifier for the institution related to the student	Alphanumeric characters of an existing institution ID MaxLength: 30 characters REQUIRED	
firstName	Student's first name	MaxLength: 35 characters	
lastName	Student's last name	MaxLength: 35 characters	
middleName	Student's middle name	MaxLength: 35 characters	
birthDate	Student's birth date	Valid date formatted as YYYY-MM-DD Must be earlier than the firstEntryDateIntoUsSchool field if it is provided	
gradeLevelWhenAssessed	Student's enrolled grade	IT, PR, PK, TK, KG, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, PS, UG	

Field Name	Description	Accepable Values	Reference
		REQUIRED	
sex	Student's gender	Male, Female REQUIRED	
hispanicOrLatino	Hispanic ethnic flag	Boolean: true, false (defaults to false if not provided) At least one of the seven ethnicity flags is required to be set to true.	
americanIndianOrAlaskaNative	American Indian/Alaskan Native race flag	Boolean: true, false (defaults to false if not provided) At least one of the seven ethnicity flags is required to be set to true.	
asian	Asian race flag	Boolean: true, false (defaults to false if not provided) At least one of the seven ethnicity flags is required to be set to true.	
blackOrAfricanAmerican	African American race flag	Boolean: true, false (defaults to false if not provided) At least one of the seven ethnicity flags is required to be set to true.	
white	White race flag	Boolean: true, false (defaults to false if not provided) At least one of the seven ethnicity flags is required to be set to true.	
nativeHawaiianOrPacificIsland	Native Hawaiian/Other Pacific Islander race flag	Boolean: true, false (defaults to false if not provided) At least one of the seven ethnicity flags is required to be set to true.	
twoOrMoreRaces	A person having origins in any of more than one of the racial groups	Boolean: true, false (defaults to false if not provided) At least one of the seven ethnicity flags is required to be set to true.	
ideaIndicator	Student enrolled in IEP	Boolean: true, false REQUIRED	
lepStatus	Student identified as LEP	Boolean: true, false REQUIRED	
section504Status	Student with 504 plan	Boolean: true, false, null (represents Unknown)	

Field Name	Description	Acceptable Values	Reference
disadvantageStatus	An indication that the student met the state's criteria for classification as having an economic disadvantage	Boolean: true, false REQUIRED	
languageCode	Three-character code for the specific language or dialect that a person uses to communicate.	See CEDS Language Codes reference	https://ceds.ed.gov/iso639-2LanguageCode.aspx
migrantStatus	Persons who are, or whose parents or spouses are, migratory agricultural workers, including migratory dairy workers or migratory fishers, and who, in the preceding 36 months, in order to obtain, or accompany such parents or spouses, in order to obtain, temporary or seasonal employment in agricultural or fishing work (A) have moved from one LEA to another; (B) in a state that comprises a single LEA, have moved from one administrative area to another within such LEA; or (C) reside in an LEA of more than 15,000 square miles, and migrate a distance of 20 miles or more to a temporary residence to engage in a fishing activity.	Boolean: true, false (defaults to false if not provided)	
firstEntryDateIntoUsSchool	The date of a student's initial enrollment into a United States school	Valid date formatted as YYYY-MM-DD Must be later than the birthDate field if it is provided	
lepEntryDate	The date a student classified as limited English proficient entered the LEP program	Valid date formatted as YYYY-MM-DD	
lepExitDate	The date a student classified as limited English proficient exited the LEP program		
title3ProgramType	Title III Language Instruction Program Type	"DualLanguage" - Dual Language "TwoWayImmersion" - Two-way immersion "TransitionalBilingual" – Transitional bilingual "DevelopmentalBilingual" – Developmental bilingual "ShelteredEnglishInstruction" – Sheltered English instruction "StructuredEnglishImmersion" – Structured English immersion "SDAIE" – Specially designed academic instruction delivered in English "ContentBasedESL" – Content-based ESL "PullOutESL" – Pull-out ESL	

Field Name	Description	Accepable Values	Reference
		"Other" - Other	
primaryDisabilityType	The major or overriding disability condition hat best describes a student's impairment	"AUT" – Autism "DB" – Deaf-blindness "DD" – Developmental delay "EMN" – Emotional disturbance "HI" – Hearing impairment "ID" – Intellectual disability "MD" – Multiple disabilities "OI" – Orthopedic impairment "OHI" – Other health impairment "SLD" – Specific learning disability "SLI" – Speech or language impairment "TBI" – Traumatic brain injury "VI" – Visual impairment	
elpLevel	An indication of progress made by a student toward English proficiency	MaxLength: 20 characters	

Data Model and Serialization

Student information is represented as a concrete data model serialized as JSON (http://www.json.org).

Below is an example of a JSON student record:

```
{
  ssid: "ssid4",
  stateAbbreviation: "CA",
  institutionIdentifier: "DS9001",
  districtIdentifier: "DISTRICT9",
  firstName: "test",
  lastName: "student",
  middleName: null,
  birthDate: "1999-01-02",
  externalSsid: "essid4",
  gradeLevelWhenAssessed: "04",
  sex: "Male",
  hispanicOrLatino: false,
  americanIndianOrAlaskaNative: false,
  asian: false,
  blackOrAfricanAmerican: false,
  white: false,
  nativeHawaiianOrPacificIsland: false,
  twoOrMoreRaces: true,
  iDEAIndicator: false,
  lepStatus: false,
  section504Status: false,
  disadvantageStatus: false,
  languageCode: "spa",
  migrantStatus: false,
  firstEntryDateIntoUsSchool: "2000-03-02",
  lepEntryDate: null,
  lepExitDate: null,
  title3ProgramType: null,
  primaryDisabilityType: null,
  elpLevel: "0"
}
```

Data Exchange Protocol

Name	Description
Protocol	HTTPS RESTful API
Authentication and Authorization	OAuth 2.0
Base URL	https://*[ART_BASE_URL]/*

API Endpoint	HTTP Verb	Description	Body Content	Required Permissions	Responses
/rest/external/student	POST	Student upsert performed. If the student exists based on the SSID and State Abbreviation, that student is updated, otherwise they are created.	Single student JSON object	Student Modify	201: Student created successfully 204: Student updated successfully 401: Not authorized 400: Bad Request / Validation error Note: The Location header includes the URL for retrieving the student information.
/rest/external/student/{stateCode}/{ssid}	DELETE	Deletes the student represented by the State Abbreviation and SSID	n/a	Student Modify	204: Student deleted successfully 401: Not authorized 404: Student not found
/rest/external/student/{stateCode}/{ssid}	GET	Retrieve the student information represented by the State Abbreviation and SSID	n/a	Student Read	200: Success 401: Not authorized 404: Student not found Note: Student JSON is returned as the content.

API Endpoint	HTTP Verb	Description	Body Content	Required Permissions	Responses
/rest/external/student/{stateCode}/batch	POST	Submit a batch job of students to be inserted or updated for this particular State.	Array of student JSON objects	Student Modify	202: Batch job accepted 400: Bad request 401: Not authorized Note: The Location header returns the URL used to retrieve the batch progress information.
/rest/external/student/{stateCode}/batch	DELETE	Submit a batch job of students to be deleted for his particular State.	Array of JSON objects with the "ssid" and "stateCode" properties only	Student Modify	202: Batch job accepted 400: Bad request 401: Not authorized Note: The Location header returns the URL used to retrieve the batch progress information.

/rest/external/student/batch/{batchId}	GET	Retrieve progress information on a previously submitted batch. The URL needed to access this endpoint is returned from the Batch POST and DELETE endpoints via the Location header.
		
		The data returned includes the number of students submitted, the number processed and any exceptions or validation errors that occurred during processing.
			n/a	Student Read	200: Success
					
					401: Not authorized
					
					404: Not found
					
					Example response:
					{
					  id: "578e6c34e4b01a4741ab321d",
					  percentComplete: 1,
					  numProcessed: 3,
					  numSubmitted: 3,
					  numSuccess: 2,
					  exceptions: [
					  {
					    errorMessage: "Grade level when assessed should be in IT, PR, PK, TK, KG, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, PS, UG\n",
					    ssid: "ssid2"

API Endpoint	HTTP Verb	Description	Body Content	Required Permissions	Responses
					}], submittedBy: "user@example.com", submittedDate: "2016-07-19T18:06:44.160+0000", updatedDate: "2016-07-19T18:06:44.681+0000", stateCode: "CA", upsert: true, numExceptions: 1 }