```
USER DATA CONTAINS:
      USER METADATA: KEY=user metadata
      // user's metadata in a single dictionary
        "id": 1.
        "name": "Jonathan Sinocchi",
        "token": "ir903q4ur8394hr8ehrf",
        "domain": "psu.instructure.com",
        "updated at": 323442",
        "update duration": 88, //seconds
        "courses selected": [39238, 234544, 123432]
      COURSES: KEY=courses
      // represents a list of course dictionaries
             COURSE:
             // represents a course dictionary
              "id": 370663
              "name": "InstructureCon 2012",
              "course code": "INSTCON12",
              "original name": "InstructureCon-2012-01",
              "default_view": "feed",
              "syllabus body": "syllabus html goes here",
              "public description": "Come one, come all to InstructureCon 2012!",
              "time zone": "America/Denver"
      FILES: KEY=files
      // represents a list of file dictionaries
             FILE:
             // represents a file dictionary
              "id": 569
              "type": file
              "course id": 1432523
              "folder id": 4207,
              "display name": "file.txt",
              "filename": "file.txt",
```

```
"url": "http://www.example.com/file...",
       "size": 43451,
       "updated at": "2012-07-06T14:58:50Z",
       "locked": false,
       "lock_explanation": "This assignment is locked until September 1 at
      12:00am",
       "module id": 123, // custom
       "module name": "name" // custom
1
ANNOUNCEMENTS: KEY=announcements
// represents a list of announcement dictionaries
      ANNOUNCEMENT:
      // represents an announcement dictionary
       "id": 1,
       "type": "announcement"
       "course id": 323442",
       "title": "Hear ye",
       "message": "Henceforth, all assignments must be...",
       "posted at": "2017-01-31T22:00:00Z",
      }
ASSIGNMENTS: KEY="assignments"
// represents a list of assignment dictionaries
ASSIGNMENT:
      // represents an assignment dictionary
      {
        "id": 4,
       "type": "assignment"
       "course id": 323442",
       "name": "some assignment",
       "description": "Do the following:...",
       "created at": "2012-07-01T23:59:00-06:00",
       "updated at": "2012-07-01T23:59:00-06:00",
       "due at": "2012-07-01T23:59:00-06:00",
       "submission types": ["online text entry"]
```

```
"can submit": true,
        "graded submissions exist": false
        "module id": 123, // custom
        "module name": "name" // custom
        "content": [] // custom
        // for content, get href links from assignment description, refer to
       assignment to content.py
      }
]
QUIZZES: KEY="quizzes"
// represents a list of quiz dictionaries
       QUIZ:
      // represents a quiz dictionary
      {
       "id": 5,
       "title": "Hamlet Act 3 Quiz",
       "course id": 1432523
       "preview url": "http://canvas.example.edu...",
       "description": "This is a quiz on Act 3 of Hamlet",
       "quiz type": "assignment",
       "time_limit": 5,
       "allowed_attempts": 3,
       "points possible": 20,
       "due at": "2013-01-23T23:59:00-07:00",
       "locked for user": false,
       "lock explanation": "This quiz is locked until September 1 at 12:00am",
       "module id": 123, // custom
       "module name": "name" // custom
      }
CALENDAR EVENTS: KEY="calendar events"
// represents a list of calendar event dictionaries
ſ
       EVENT:
      // represents a calendar event dictionary
        "id": 234,
        "title": "Paintball Fight!",
```

```
"course_id": 323442",

"start_at": "2012-07-19T15:00:00-06:00",

"end_at": "2012-07-19T16:00:00-06:00",

"description": "<b>It's that time again!</b>",

"location_name": "Greendale Community College",

"location_address": "Greendale, Colorado",

"context_code": "course_123",

"context_name": "Chemistry 101",

"all_context_codes": "course_123,course_456"

"url": "https://example.com/api/v1/calendar_events/234",

}
```

}