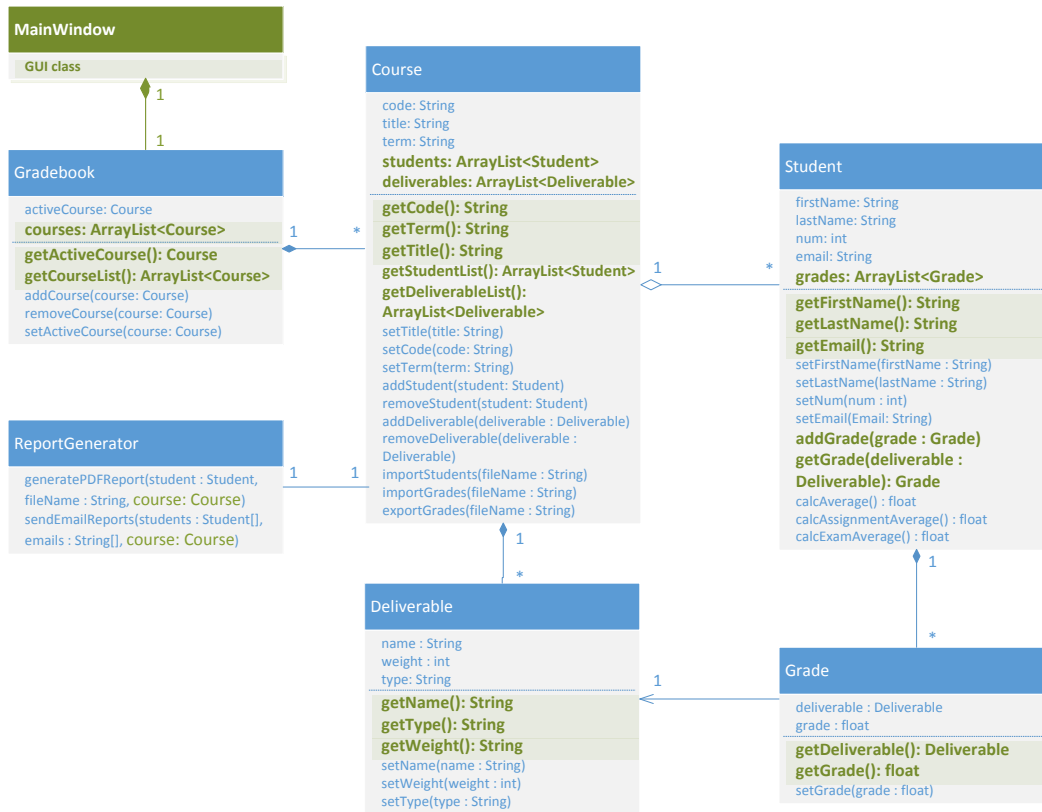Computer Science 2212b
Team Assignment 2
Team 10

Due: February 28th, 2014 at 11:59 PM

Team Members:
Henrique Brighenti
Will Callaghan
Alex MacLean
Stephen Solis
Marcus Tonogai

SECTION 1: REVISED UML DIAGRAM

MainWindow

GUI class

1

1

Gradebook

activeCourse: Course
courses: ArrayList<Course>

getActiveCourse(): Course
getCourseList(): ArrayList<Course>
addCourse(course: Course)
removeCourse(course: Course)
setActiveCourse(course: Course)

Course

code: String
title: String
term: String
students: ArrayList<Student>
deliverables: ArrayList<Deliverable>

getCode(): String
getTerm(): String
getTitle(): String
getStudentList(): ArrayList<Student>
getDeliverableList():
ArrayList<Deliverable>
setTitle(title: String)
setCode(code: String)
setTerm(term: String)
addStudent(student: Student)
removeStudent(student: Student)
addDeliverable(deliverable : Deliverable)
removeDeliverable(deliverable :
Deliverable)
importStudents(fileName : String)
importGrades(fileName : String)
exportGrades(fileName : String)

1   *

1   *

Student

firstName: String
lastName: String
num: int
email: String
grades: ArrayList<Grade>

getFirstName(): String
getLastName(): String
getEmail(): String
setFirstName(firstName : String)
setLastName(lastName : String)
setNum(num : int)
setEmail(Email: String)
addGrade(grade : Grade)
getGrade(deliverable :
Deliverable): Grade
calcAverage() : float
calcAssignmentAverage() : float
calcExamAverage() : float

1

ReportGenerator

generatePDFReport(student : Student,
fileName : String, course: Course)
sendEmailReports(students : Student[],
emails : String[], course: Course)

1   1

*

Deliverable

name : String
weight : int
type: String

getName(): String
getType(): String
getWeight(): String
setName(name : String)
setWeight(weight : int)
setType(type : String)

1

*

Grade

deliverable : Deliverable
grade : float

getDeliverable(): Deliverable
getGrade(): float
setGrade(grade : float)

SECTION 2: REVISED USER STORIES

2

https://www.pivotaltracker.com/s/projects/1003292

Completed User Stories:
- User can add a course
    - Hit the first icon underneath File menu in the top left or go to the courses menu and hit "Add Course"
- User can delete a course
    - Hit the third icon underneath the File menu in the top left or go to the courses menu and hit "Delete Course"
- User can change the code, title, or term of a course
    - The middle icon below the File and Courses menus will allow a user to edit a course or got to the Courses menu and click "Edit Course"
- User can change the active course
    - Use the drop down menu in the top right to select an active course
- User's data is retrieved and restored whenever the system is started
    - Courses previously added are in the spreadsheet area when program starts
- User's changes are stored prior to exiting the program
    - No need to hit a save button!
- User can quit the application at any time
    - Hit the red "x" button in the top left

SECTION 3: CLASS DESCRIPTIONS

Package	Class	Tree	Deprecated	Index	Help

Prev Package	Next Package		Frames	No Frames	All Classes

Package ca.uwo.csd.cs2212.team10

Class Summary

Class	Description
Course	Class representing a course with students and deliverables
Deliverable	Class representing a gradeable item to be completed by a student in a course
Grade	Class representing a student's grade for a particular deliverable
Gradebook	Class representing a gradebook with several courses
ReportGenerator	Class used to generate and send PDF reports
Student	Class representing a student in a course.

Prev Package	Next Package		Frames	No Frames	All Classes

Package   Class   Tree   Deprecated   Index   Help

Prev Class   **Next Class**   Frames   No Frames   All Classes
Summary: Nested | Field | Constr | Method   Detail: Field | Constr | Method

ca.uwo.csd.cs2212.team10

Class Course

java.lang.Object
     ca.uwo.csd.cs2212.team10.Course

```
public class Course
extends java.lang.Object
```

Class representing a course with students and deliverables

Constructor Summary

Constructors
Constructor and Description
Course(java.lang.String code, java.lang.String title, java.lang.String term)   Create a new course with the specified code, title, and term, and initially no students or deliverables

Method Summary

Methods	
Modifier and Type	**Method and Description**
void	**addDeliverable**(**Deliverable** deliverable) Adds a deliverable to the course
void	**addStudent**(**Student** student) Adds a student to the course
void	**exportGrades**(java.lang.String fileName) Exports list of grades to a CSV file.
java.lang.String	**getCode**() Gets course code
java.util.ArrayList<**Deliverable**>	**getDeliverableList**() Gets the list of deliverables in the course
java.util.ArrayList<**Student**>	**getStudentList**() Gets the list of students in the course
java.lang.String	**getTerm**() Gets term
java.lang.String	**getTitle**() Gets course title

void	**importGrades**(java.lang.String fileName)
	Imports list of grades from a CSV file.
void	**importStudents**(java.lang.String fileName)
	Imports list of students from a CSV file.
void	**removeDeliverable**(**Deliverable** deliverable)
	Removes a deliverable from the course
void	**removeStudent**(**Student** student)
	Removes a student from the course
void	**setCode**(java.lang.String code)
	Sets course code
void	**setTerm**(java.lang.String term)
	Sets term
void	**setTitle**(java.lang.String title)
	Sets course title

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Course

```
public Course(java.lang.String code,
      java.lang.String title,
      java.lang.String term)
```

Create a new course with the specified code, title, and term, and initially no students or deliverables

Parameters:

code - Course code

title - Title of course

term - Term in which course is taught

Method Detail

setCode

```
public void setCode(java.lang.String code)
```

Sets course code

Parameters:

> `code` - The code to set

setTerm

`public void setTerm(java.lang.String term)`

Sets term

Parameters:

> `term` - The term to set

setTitle

`public void setTitle(java.lang.String title)`

Sets course title

Parameters:

> `title` - The title to set

getCode

`public java.lang.String getCode()`

Gets course code

Returns:

> Course code

getTerm

`public java.lang.String getTerm()`

Gets term

Returns:

> Term in which course is taught

getTitle

`public java.lang.String getTitle()`

Gets course title

Returns:

Title of course

getStudentList

```
public java.util.ArrayList<Student> getStudentList()
```

Gets the list of students in the course

Returns:

List of students in the course

getDeliverableList

```
public java.util.ArrayList<Deliverable> getDeliverableList()
```

Gets the list of deliverables in the course

Returns:

List of deliverables in the course

addStudent

```
public void addStudent(Student student)
```

Adds a student to the course

Parameters:

student - The student to add

removeStudent

```
public void removeStudent(Student student)
```

Removes a student from the course

Parameters:

student - The student to remove

addDeliverable

```
public void addDeliverable(Deliverable deliverable)
```

Adds a deliverable to the course

Parameters:

deliverable - The deliverable to add

removeDeliverable

```
public void removeDeliverable(Deliverable deliverable)
```

Removes a deliverable from the course

Parameters:

deliverable - The deliverable to remove

importStudents

```
public void importStudents(java.lang.String fileName)
                    throws java.io.IOException
```

Imports list of students from a CSV file. Throws an IOException if the file could not be read.

Parameters:

fileName - The name of the file to read

Throws:

java.io.IOException

importGrades

```
public void importGrades(java.lang.String fileName)
                  throws java.io.IOException
```

Imports list of grades from a CSV file. Throws an IOException if the file could not be read.

Parameters:

fileName - The name of the file to read

Throws:

java.io.IOException

exportGrades

```
public void exportGrades(java.lang.String fileName)
                  throws java.io.IOException
```
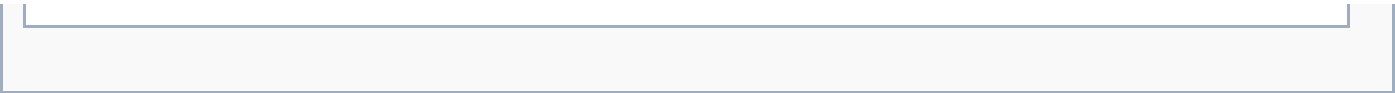
Exports list of grades to a CSV file. Throws an IOException if the file could not be written.

Parameters:

fileName - The name of the file to write

Throws:

java.io.IOException

Package | Class | Tree Deprecated Index Help

Prev Class   Next Class   Frames   No Frames   All Classes
Summary: Nested | Field | Constr | Method   Detail: Field | Constr | Method

ca.uwo.csd.cs2212.team10

Class Deliverable

java.lang.Object
    ca.uwo.csd.cs2212.team10.Deliverable

```
public class Deliverable
extends java.lang.Object
```

Class representing a gradeable item to be completed by a student in a course

Constructor Summary

Constructors

Constructor and Description
Deliverable(java.lang.String name, java.lang.String type, int weight) Create a new deliverable with specified name, type, and weight

Method Summary

Methods

Modifier and Type	Method and Description
java.lang.String	**getName**() Gets name of deliverable
java.lang.String	**getType**() Gets type of deliverable
int	**getWeight**() Gets weight of deliverable
void	**setName**(java.lang.String name) Sets name of deliverable
void	**setType**(java.lang.String type) Sets type of deliverable
void	**setWeight**(int weight) Sets weight of deliverable

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Deliverable

```
public Deliverable(java.lang.String name,
          java.lang.String type,
          int weight)
```

Create a new deliverable with specified name, type, and weight

Parameters:

    `name` - The name of the deliverable

    `type` - The type of deliverable

    `weight` - The weight of the deliverable

Method Detail

setName

```
public void setName(java.lang.String name)
```

Sets name of deliverable

Parameters:

    `name` - The name to set

setType

```
public void setType(java.lang.String type)
```

Sets type of deliverable

Parameters:

    `type` - The type to set

setWeight

```
public void setWeight(int weight)
```

Sets weight of deliverable

Parameters:

> `weight` - The weight to set

getName

`public java.lang.String getName()`

Gets name of deliverable

Returns:

> The name of the deliverable

getType

`public java.lang.String getType()`

Gets type of deliverable

Returns:

> The type of deliverable

getWeight

`public int getWeight()`

Gets weight of deliverable

Returns:

> The weight of the deliverable

Package   Class   Tree   Deprecated   Index   Help

Prev Class   **Next Class**   Frames   No Frames   All Classes
Summary: Nested | Field | Constr | Method   Detail: Field | Constr | Method

ca.uwo.csd.cs2212.team10

Class Grade

java.lang.Object
      ca.uwo.csd.cs2212.team10.Grade

```
public class Grade
extends java.lang.Object
```

Class representing a student's grade for a particular deliverable

Constructor Summary

Constructors

Constructor and Description
Grade(**Deliverable** deliverable, float grade) Create a new grade for specified deliverable and with given grade

Method Summary

Methods

Modifier and Type	Method and Description
Deliverable	**getDeliverable**() Gets the deliverable
float	**getGrade**() Gets the grade
void	**setGrade**(float grade) Sets the grade

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Grade

```
public Grade(Deliverable deliverable,
      float grade)
```

Create a new grade for specified deliverable and with given grade

Parameters:

deliverable - Deliverable with which grade is associated

grade - Grade received by student

Method Detail

setGrade

```
public void setGrade(float grade)
```

Sets the grade

Parameters:

grade - The grade to set

getGrade

```
public float getGrade()
```

Gets the grade

Returns:

Grade received by student

getDeliverable

```
public Deliverable getDeliverable()
```

Gets the deliverable

Returns:

Deliverable with which grade is associated

Package   Class   Tree   Deprecated   Index   Help

Prev Class   Next Class   Frames   No Frames   All Classes
Summary: Nested | Field | Constr | Method   Detail: Field | Constr | Method

ca.uwo.csd.cs2212.team10

Class Gradebook

java.lang.Object
     ca.uwo.csd.cs2212.team10.Gradebook

```
public class Gradebook
extends java.lang.Object
```

Class representing a gradebook with several courses

Constructor Summary

Constructors

Constructor and Description
Gradebook() Create a new empty gradebook

Method Summary

Methods

Modifier and Type	Method and Description
void	**addCourse**(**Course** course) Adds a course to the gradebook
Course	**getActiveCourse**() Gets the active course
java.util.ArrayList<**Course**>	**getCourseList**() Gets the list of courses in the gradebook
void	**removeCourse**(**Course** course) Removes a course from the gradebook
void	**setActiveCourse**(**Course** course) Sets the active course.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Gradebook

```
public Gradebook()
```

Create a new empty gradebook

Method Detail

setActiveCourse

```
public void setActiveCourse(Course course)
```

Sets the active course. Throws an IllegalArgumentException if the given course is not in the gradebook.

Parameters:

> `course` - The course to set as active

getActiveCourse

```
public Course getActiveCourse()
```

Gets the active course

Returns:

> Course with which user is currently working

getCourseList

```
public java.util.ArrayList<Course> getCourseList()
```

Gets the list of courses in the gradebook

Returns:

> List of all courses

addCourse

```
public void addCourse(Course course)
```

Adds a course to the gradebook

Parameters:

course - The course to add

removeCourse

```
public void removeCourse(Course course)
```

Removes a course from the gradebook

Parameters:

course - The course to add

ca.uwo.csd.cs2212.team10

Class ReportGenerator

java.lang.Object
        ca.uwo.csd.cs2212.team10.ReportGenerator

```
public class ReportGenerator
extends java.lang.Object
```

Class used to generate and send PDF reports

Constructor Summary

Constructors
Constructor and Description
ReportGenerator()

Method Summary

Methods	
Modifier and Type	**Method and Description**
static void	**generatePDFReport**(**Student** student, **Course** course, java.lang.String fileName) Generates a PDF report for a student in a specified course.
static void	**sendEmailReports**(**Student**[] students, **Course** course, java.lang.String[] emails) Sends emails containing PDF reports for one or more students

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

ReportGenerator

```
public ReportGenerator()
```

Method Detail

generatePDFReport

```
public static void generatePDFReport(Student student,
                    Course course,
                    java.lang.String fileName)
                              throws java.io.IOException
```

Generates a PDF report for a student in a specified course. Throws an IOException if the file could not be written.

Parameters:

    `student` - The requested student

    `course` - The course the student is in

    `fileName` - The filename

Throws:

    `java.io.IOException`

sendEmailReports

```
public static void sendEmailReports(Student[] students,
                    Course course,
                    java.lang.String[] emails)
```

Sends emails containing PDF reports for one or more students

Parameters:

    `students` - An array of requested students

    `course` - The course the students are in

    `emails` - An array of the email addresses to send to

Package   Class   Tree   Deprecated   Index   Help

Prev Class   Next Class   Frames   No Frames   All Classes
Summary: Nested | Field | Constr | Method   Detail: Field | Constr | Method

ca.uwo.csd.cs2212.team10

Class Student

java.lang.Object
        ca.uwo.csd.cs2212.team10.Student

```
public class Student
extends java.lang.Object
```

Class representing a student in a course.

Constructor Summary

Constructors
Constructor and Description
Student(java.lang.String firstName, java.lang.String lastName, int num, java.lang.String email) Create a new Student object with the specified attributes and initially no grades

Method Summary

Methods	
Modifier and Type	**Method and Description**
java.lang.String	**getEmail**() Sets student's email
java.lang.String	**getFirstName**() Gets student's first name
java.lang.String	**getLastName**() Gets student's last name
int	**getNum**() Gets student number
void	**setEmail**(java.lang.String email) Sets student's email
void	**setFirstName**(java.lang.String firstName) Sets student's first name
void	**setLastName**(java.lang.String lastName) Sets student's last name
void	**setNum**(int num)

Sets student number

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructor Detail

Student

```
public Student(java.lang.String firstName,
       java.lang.String lastName,
       int num,
       java.lang.String email)
```

Create a new Student object with the specified attributes and initially no grades

Parameters:

firstName - Student's first name

lastName - Student's last name

num - Student number

email - Student's email address

Method Detail

setFirstName

```
public void setFirstName(java.lang.String firstName)
```

Sets student's first name

Parameters:

firstName - The first name to set

setLastName

```
public void setLastName(java.lang.String lastName)
```

Sets student's last name

Parameters:

lastName - The last name to set

setNum

```
public void setNum(int num)
```

Sets student number

Parameters:

    `num` - The student number to set

setEmail

```
public void setEmail(java.lang.String email)
```

Sets student's email

Parameters:

    `email` - The email to set

getFirstName

```
public java.lang.String getFirstName()
```

Gets student's first name

Returns:

    Student's first name

getLastName

```
public java.lang.String getLastName()
```

Gets student's last name

Returns:

    Student's last name

getNum

```
public int getNum()
```

Gets student number

Returns:

    Student number

getEmail

```
public java.lang.String getEmail()
```
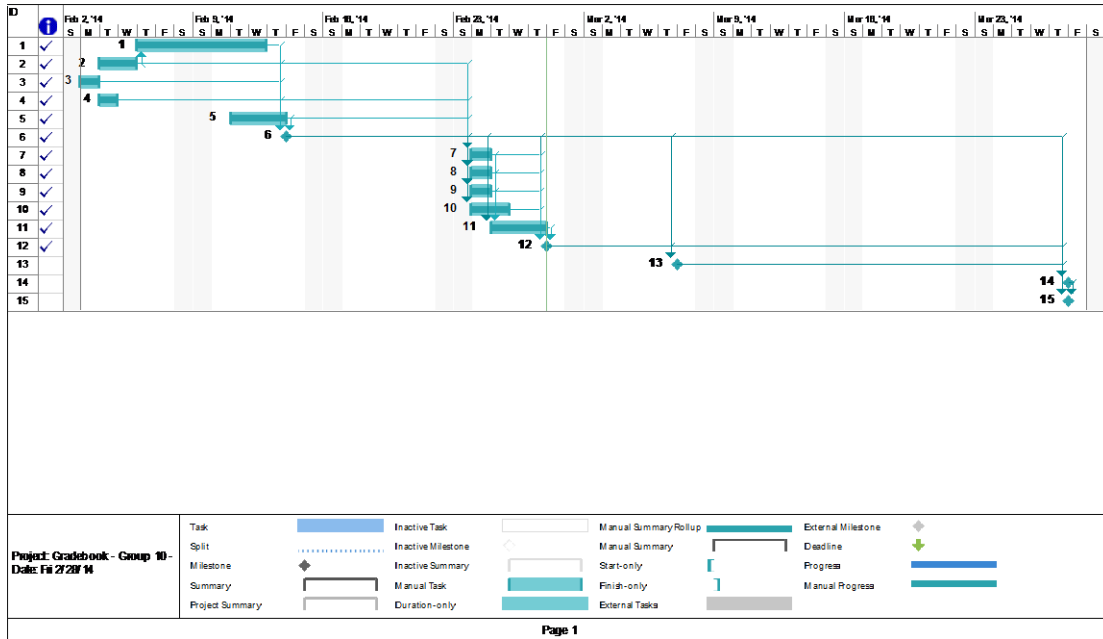
Sets student's email

Returns:

Student's email address

SECTION 4: PROJECT PLAN DOCUMENTATION

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	% Complete
1	✓		Complete the Project Plan	5 days	Thu 2/6/14	Wed 2/12/14	2	Alex MacLean,Marcus Tonogai,Henrique Brighenti,Stephen Solis,William Callaghan	100%
2	✓		Learn Microsoft Project	2 days	Tue 2/4/14	Wed 2/5/14		William Callaghan	100%
3	✓		Personal Profiles	1 day	Mon 2/3/14	Mon 2/3/14		Alex MacLean,Henrique Brighenti,Marcus Tonogai,Stephen Solis,William Callaghan	100%
4	✓		User Stories	1 day	Tue 2/4/14	Tue 2/4/14		Alex MacLean,Henrique Brighenti,Marcus Tonogai,Stephen Solis,William Callaghan	100%
5	✓		UML Class Diagram	3 days	Tue 2/11/14	Thu 2/13/14		Henrique Brighenti	100%
6	✓		Team Assignment 1	0 days	Fri 2/14/14	Fri 2/14/14	1,2,3,4,5	Alex MacLean,Henrique Brighenti,Marcus Tonogai,Stephen Solis,William Callaghan	100%
7	✓		Revised UML Diagram	1 day	Mon 2/24/14	Mon 2/24/14	5,6	Henrique Brighenti	100%
8	✓		Revised User Stories	1 day	Mon 2/24/14	Mon 2/24/14	4,6	Alex MacLean	100%
9	✓		Class Descriptions	1 day	Mon 2/24/14	Mon 2/24/14	6	Marcus Tonogai	100%
10	✓		Update Project Plan	2 days	Mon 2/24/14	Tue 2/25/14	2,6	William Callaghan	100%
11	✓		Prototype 6 User Stories	3 days	Tue 2/25/14	Thu 2/27/14	6,7,8,9	Alex MacLean,Henrique Brighenti,Stephen Solis	100%
12	✓		Team Assignment 2	0 days	Fri 2/28/14	Fri 2/28/14	6,7,8,9,10,11	Alex MacLean,Henrique Brighenti,Marcus Tonogai,Stephen Solis,William Callaghan	100%
13			Team Assignment 3	0 days	Fri 3/7/14	Fri 3/7/14	6,12		0%
14			Team Assignment 4	0 days	Fri 3/28/14	Fri 3/28/14	6,12,13		0%
15			Final Code Submission	0 days	Fri 3/28/14	Fri 3/28/14	6,12,13,14		0%

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