**ADVANCED DATABASE TOPICS – (COMP-8207)**

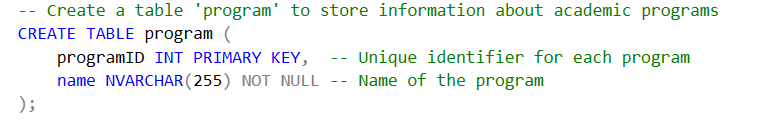
**ASSIGNMENT 2**

**Name: Ruchi Nakum**

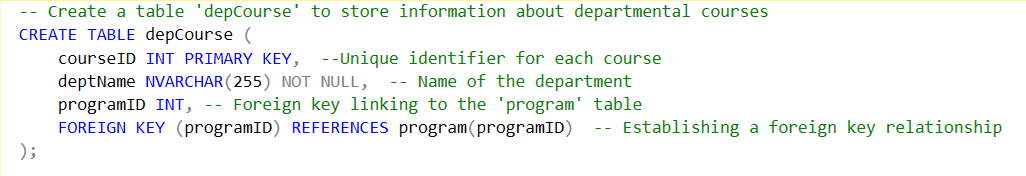
**Student Id: 110122972**

**Section: 3**

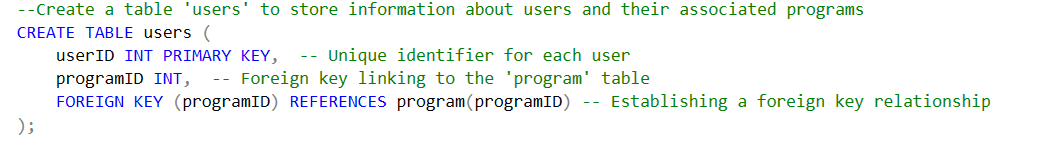
1. **Database Schema Design**
2. **`program` (programID, name)**



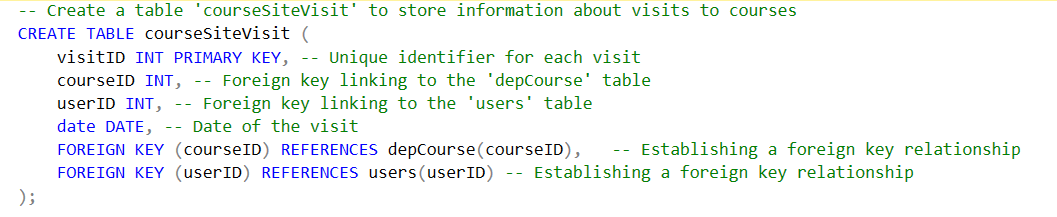
1. **`depCourse` (courseID, deptName, programID)**



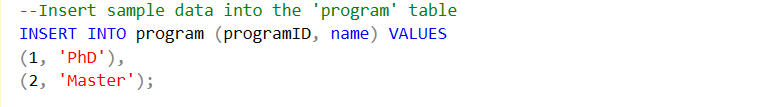
1. **`users` (userID, programID)**



1. **`courseSiteVisit` (visitID, courseID, userID, date)**



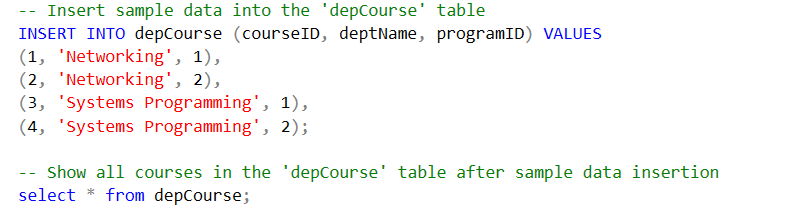
1. **Data Population**
2. **Inserting data into the ‘program’ table.**

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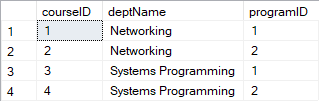
**Output:**



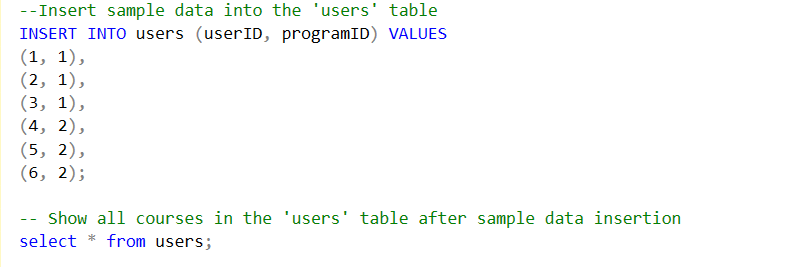
1. **Inserting data into the ‘depCourse’ table.**

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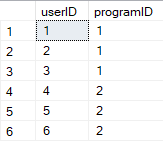
**Output:**



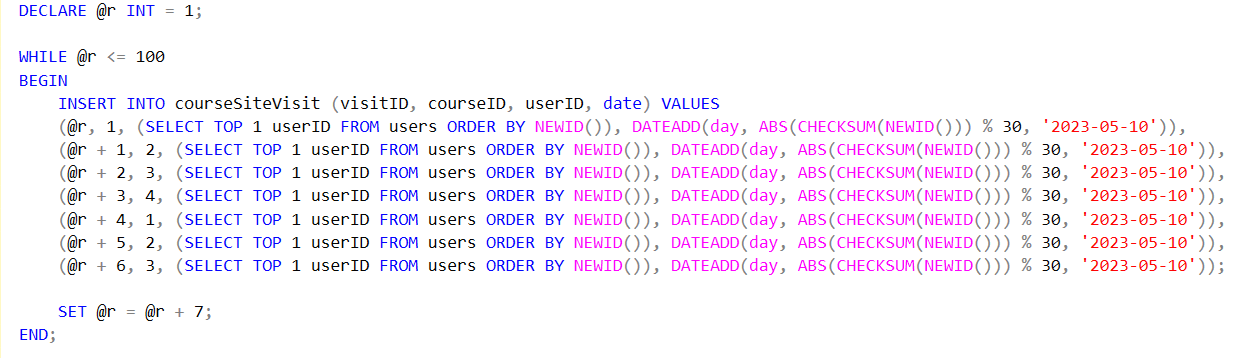
1. **Inserting data into the ‘users’ table.**

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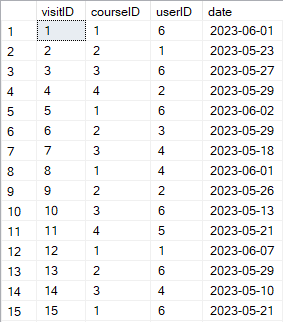
**Output:**



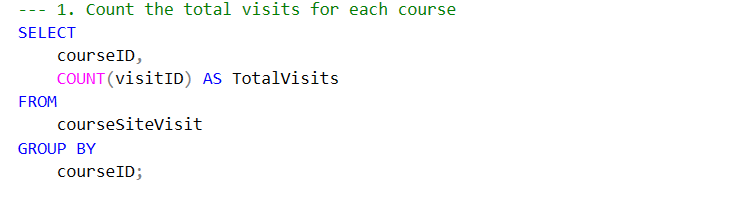
1. **Inserting data into ‘courseSiteVisit’ table.**

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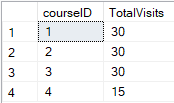
**Output:**



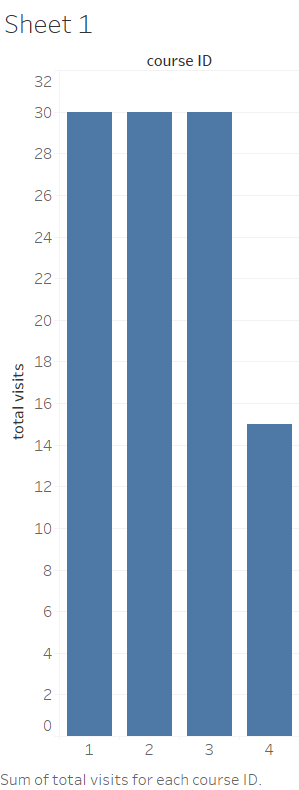
1. **Data Analysis and Visualization**
2. **The total number of times a course has been visited or accessed by all users**

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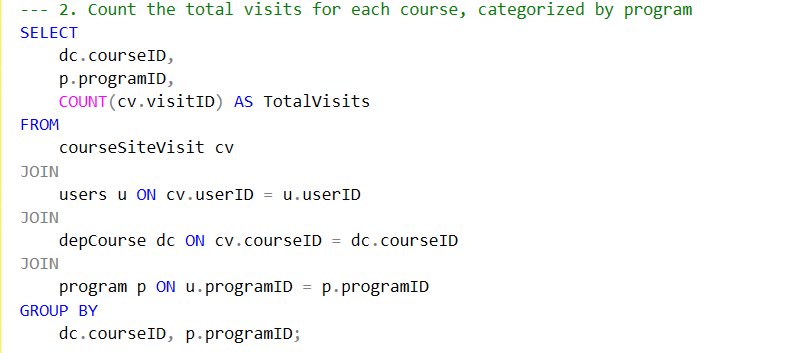
**Output:**



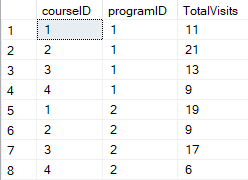
**Visualization:**

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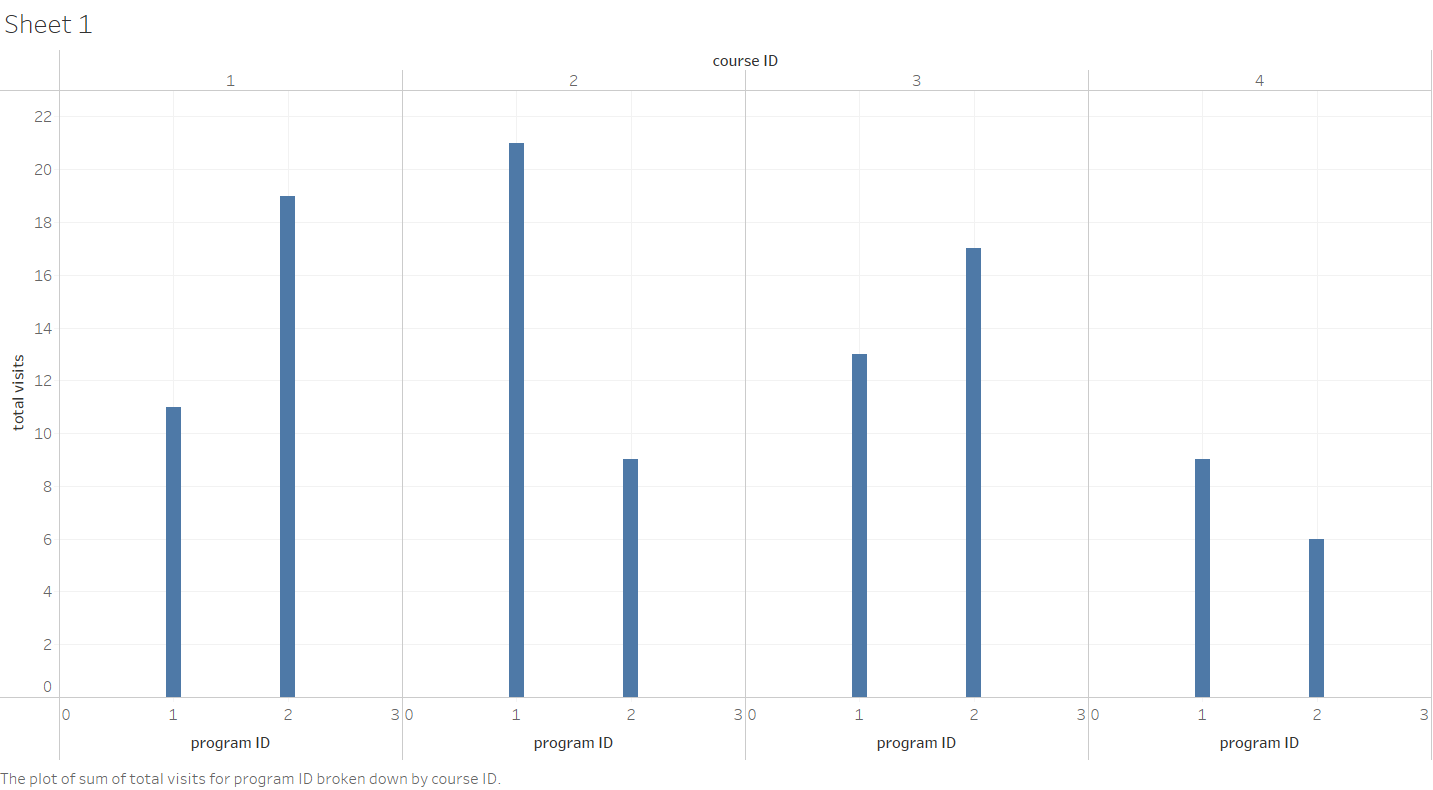
1. **The total number of visits for each course, categorized by program**

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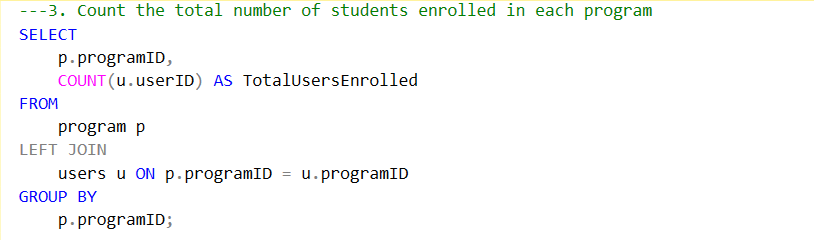
**Output:**



**Visualization:**

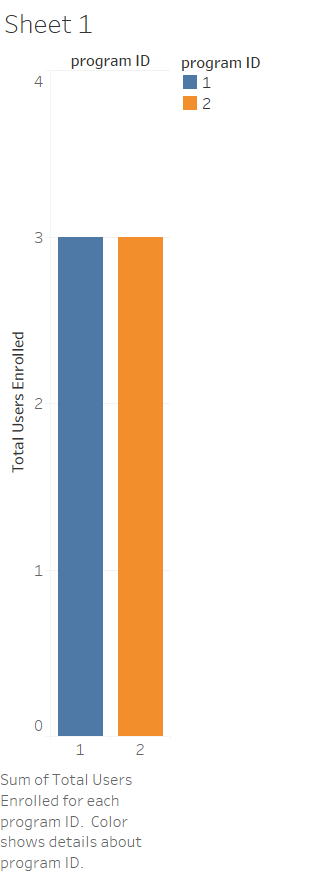
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1. **The total number of students or users enrolled in each program**

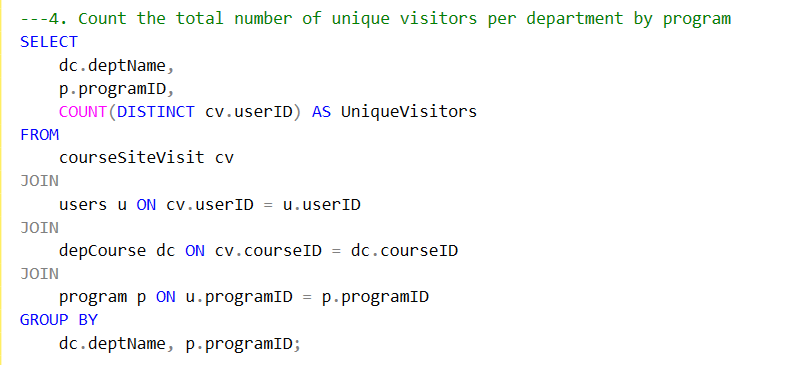
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**Output:**

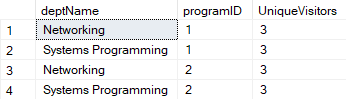
**Visualization:**

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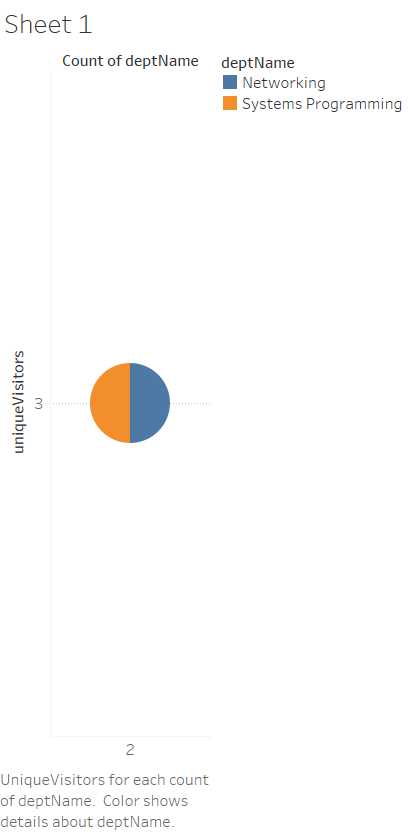
1. **The total number of unique visitors per department by program**

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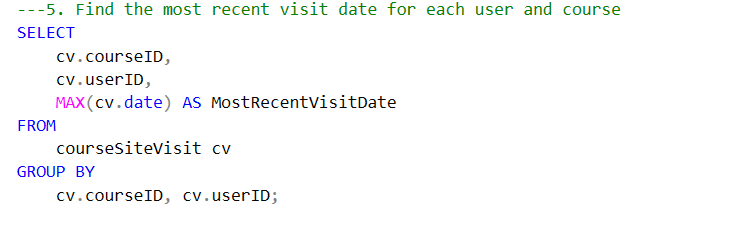
**Output:**

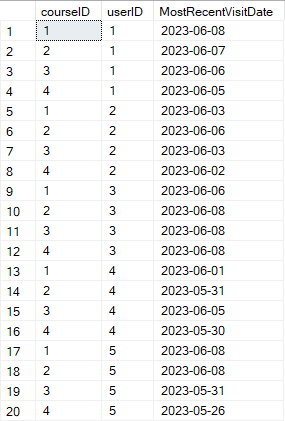


**Visualization:**

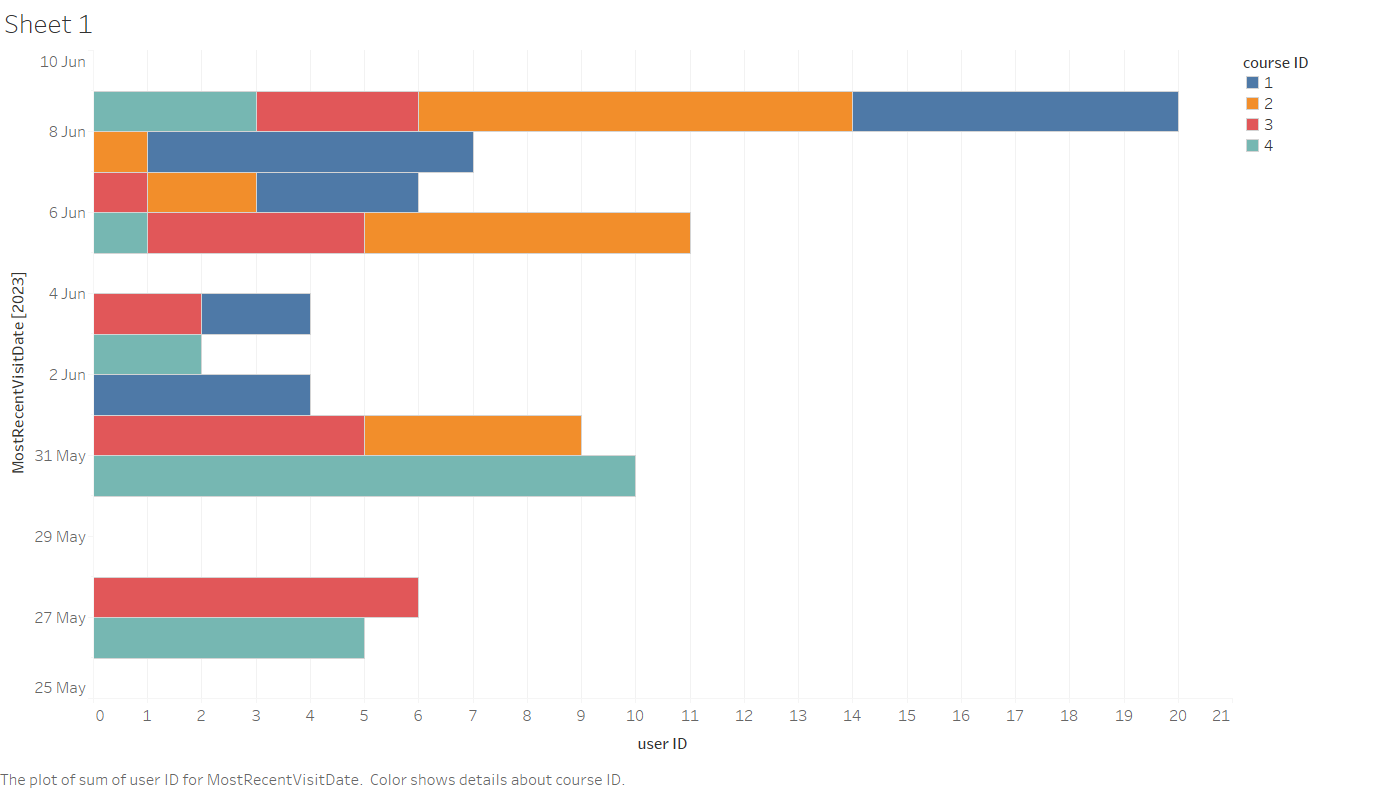
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1. **The most recent date (or last date) on which a user visited each course**

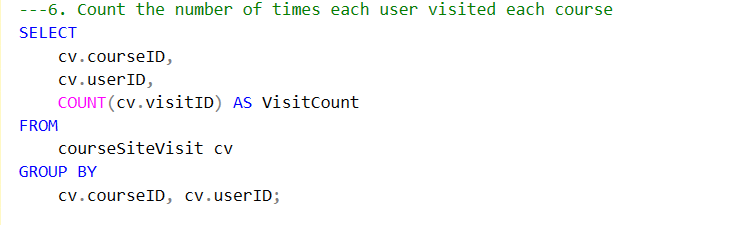
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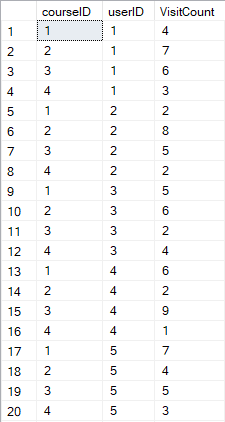
**Output:**

**Visualization:**

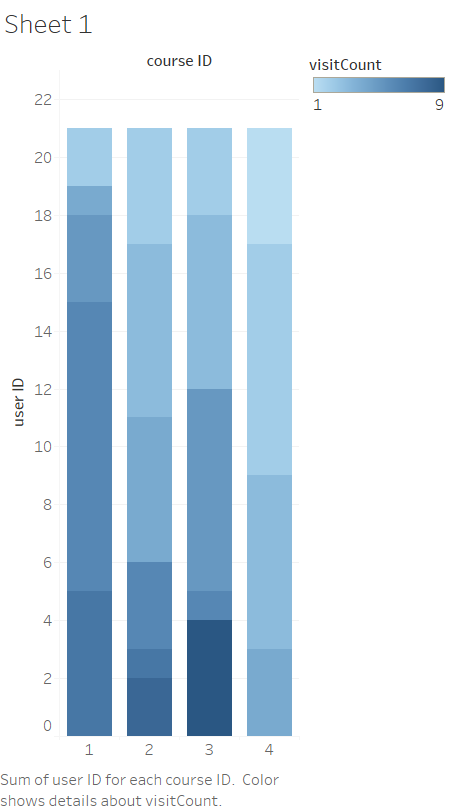
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1. **The number of times a user has visited each course**

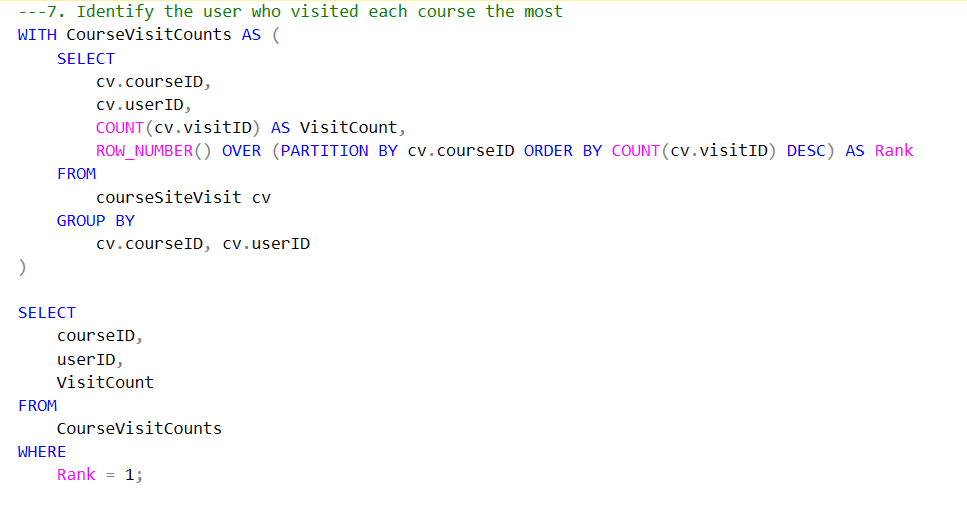
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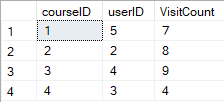
**Output:**

**Visualization:**

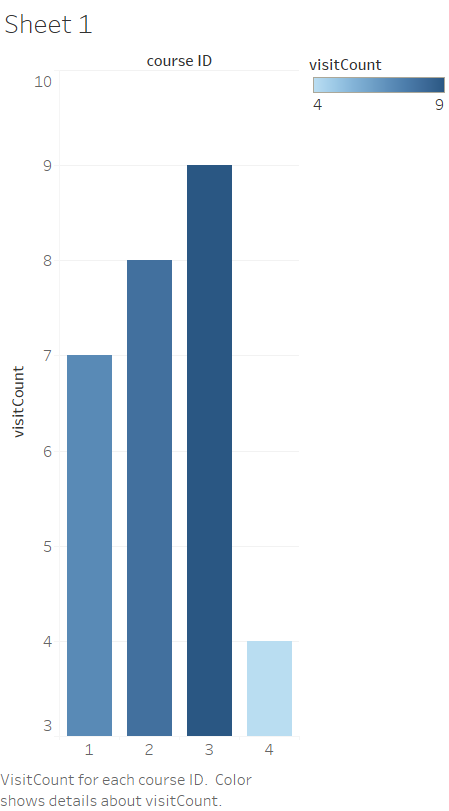
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1. **The user who has visited a course the most (i.e., most frequent visitor per course), along with the visit count**

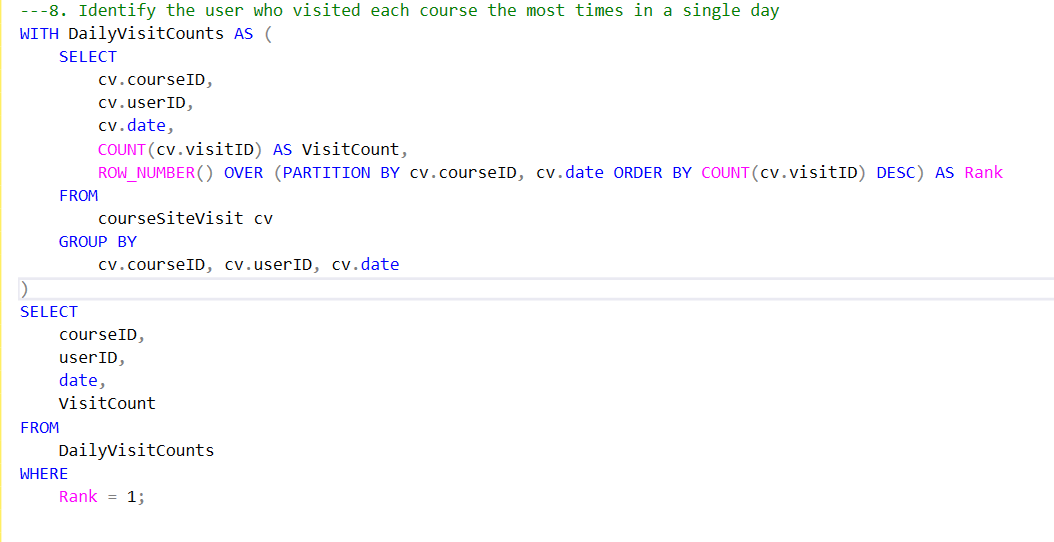
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**Output:**

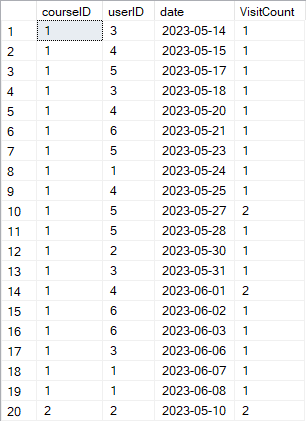
**Visualization:**

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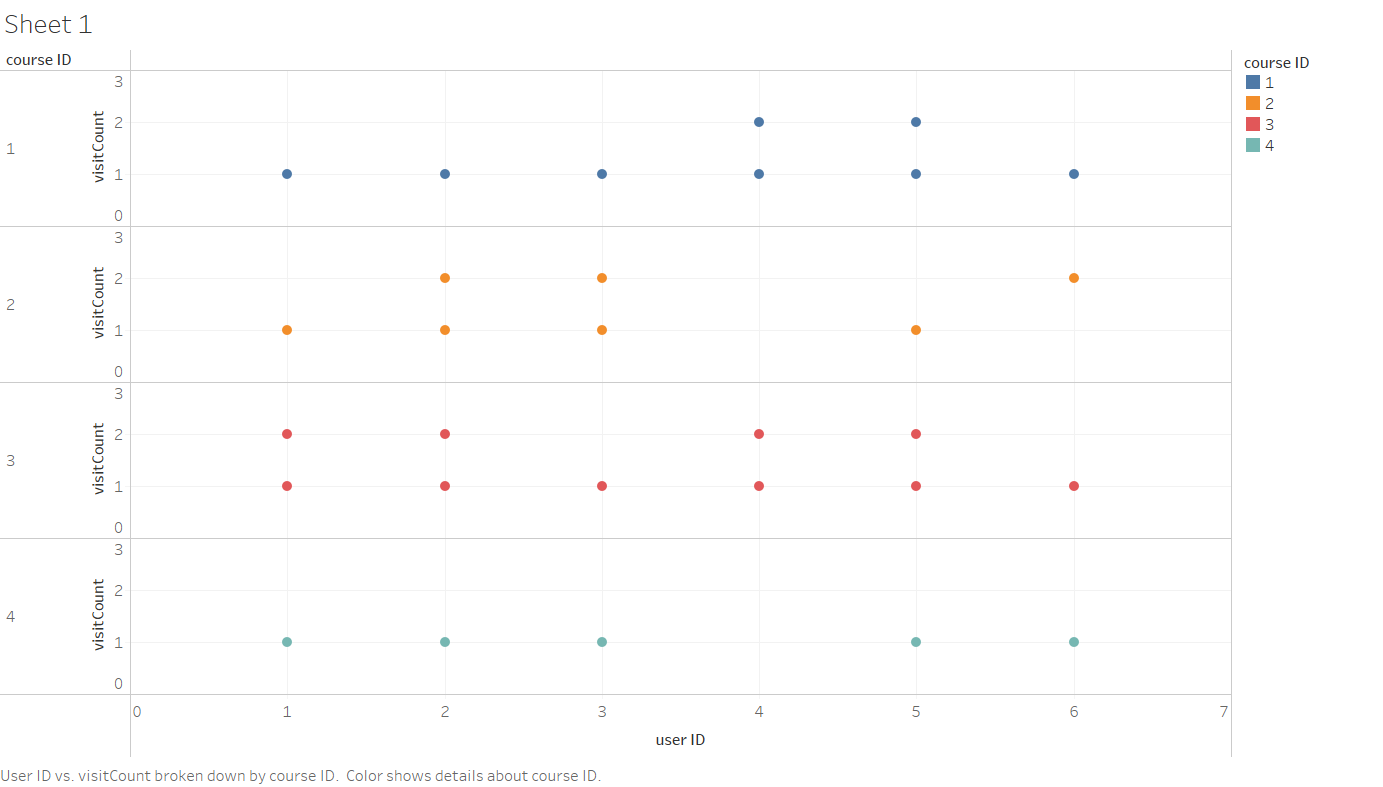
1. **The user who visited a course the most times in a single day. (i.e., most frequent visited user in single day per course)**

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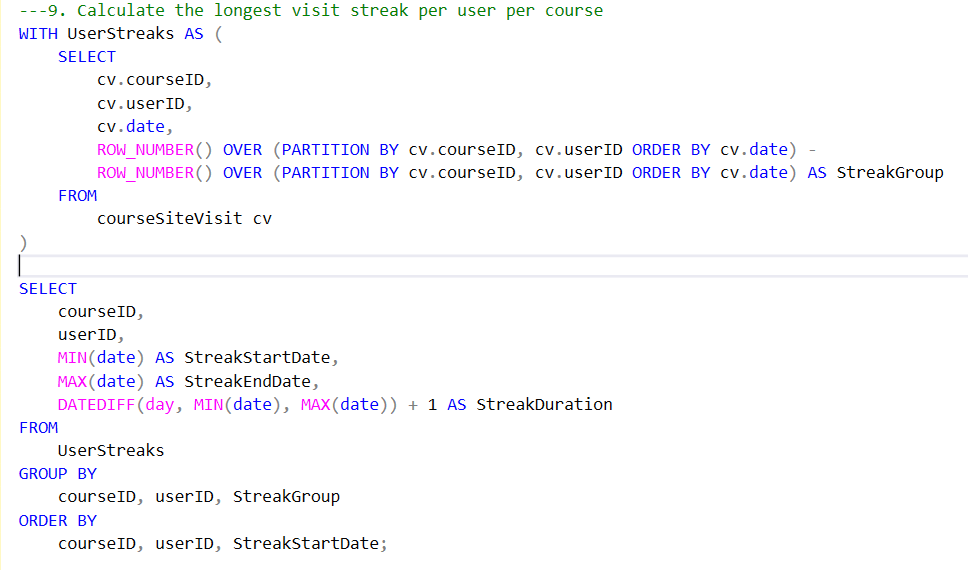
**Output:**

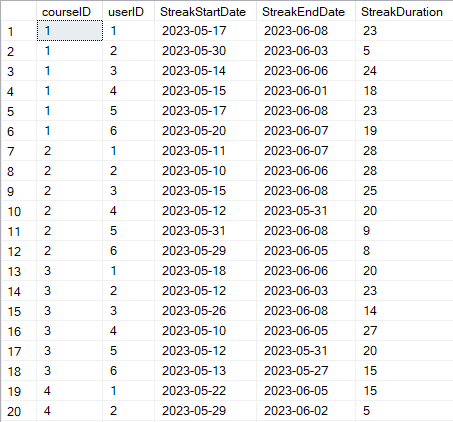


**Visualization:**

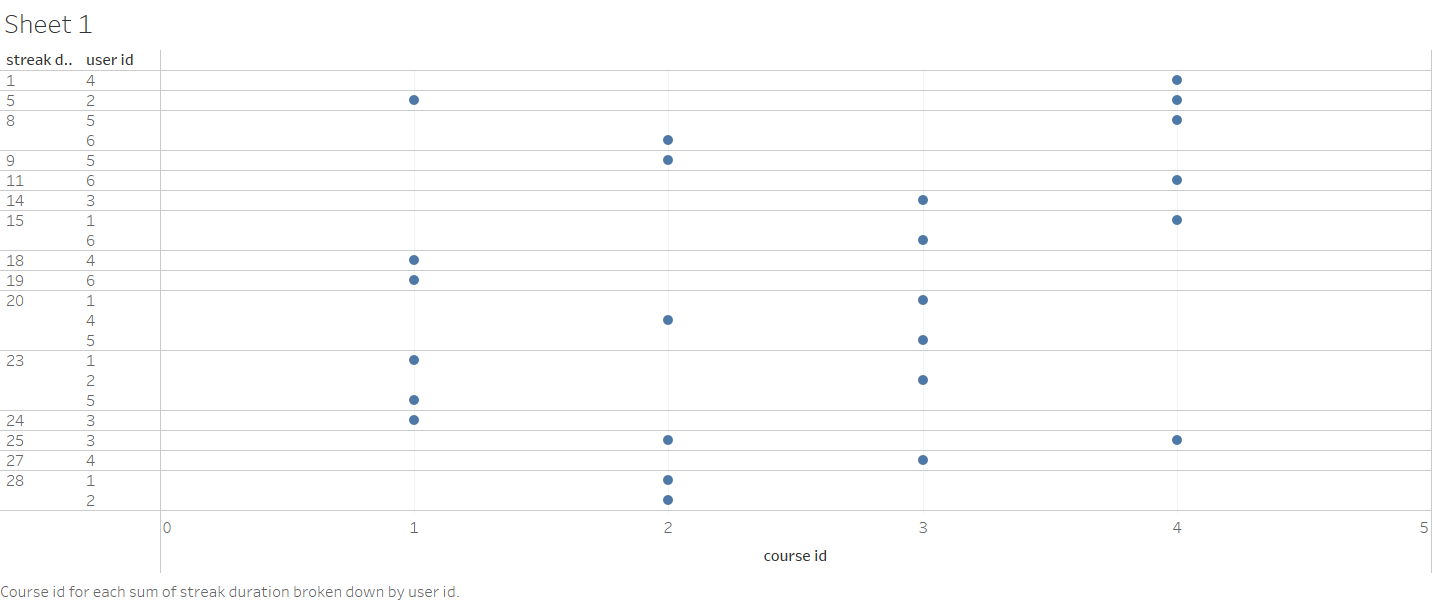
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1. **Longest visit streak days per user per course (i.e., the maximum number of days in a row that a user has accessed or engaged with the course site)**

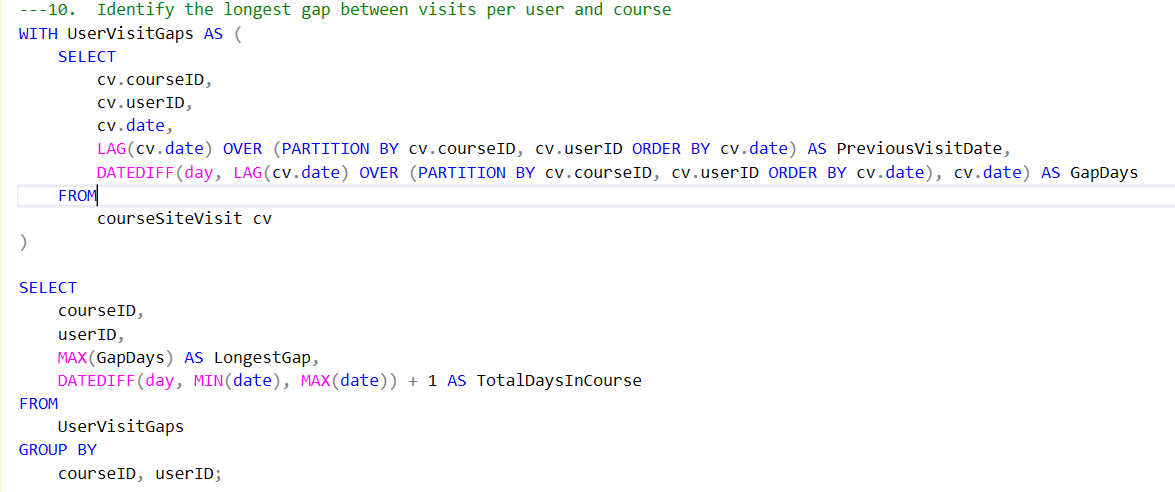
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**Output:**

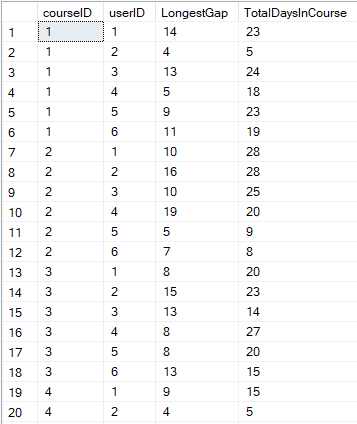
**Visualization:**

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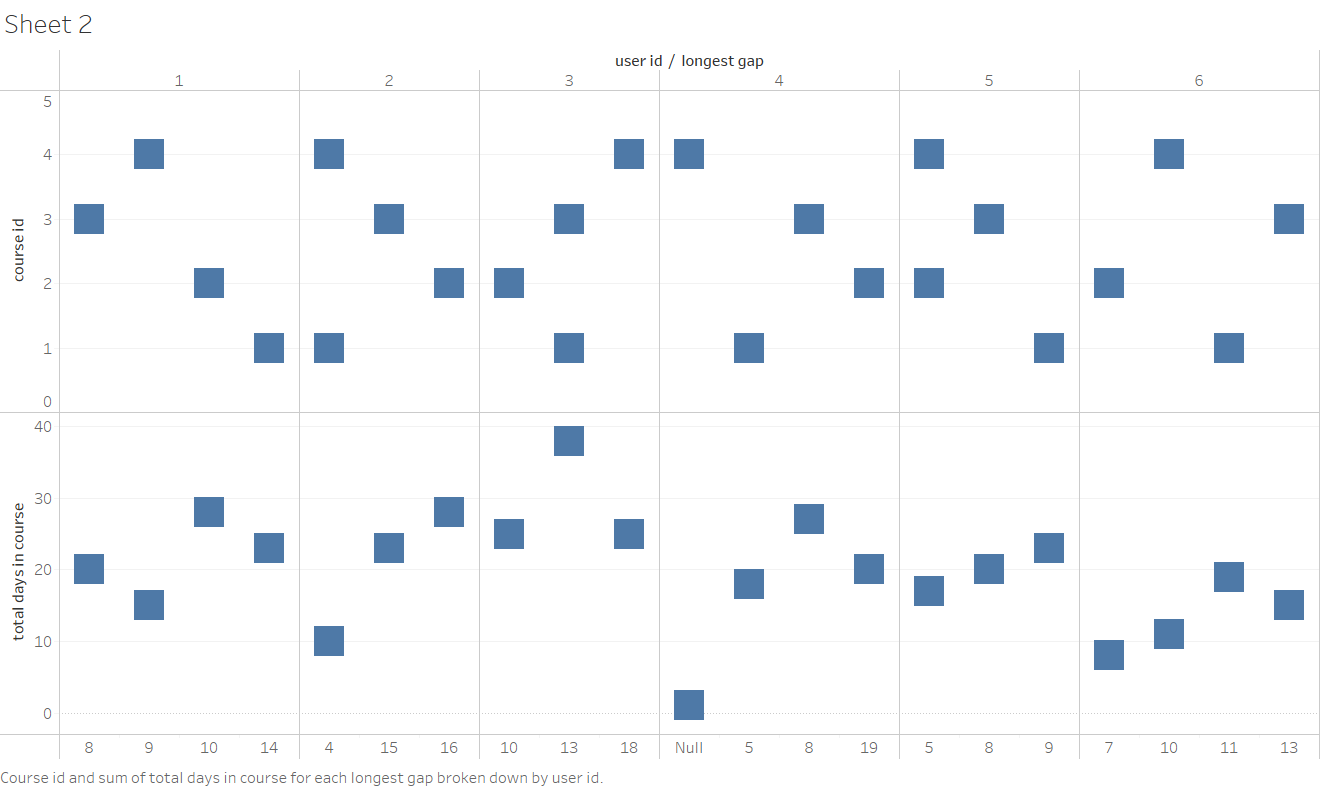
1. **Longest gap between visit per user and number of days in single course**

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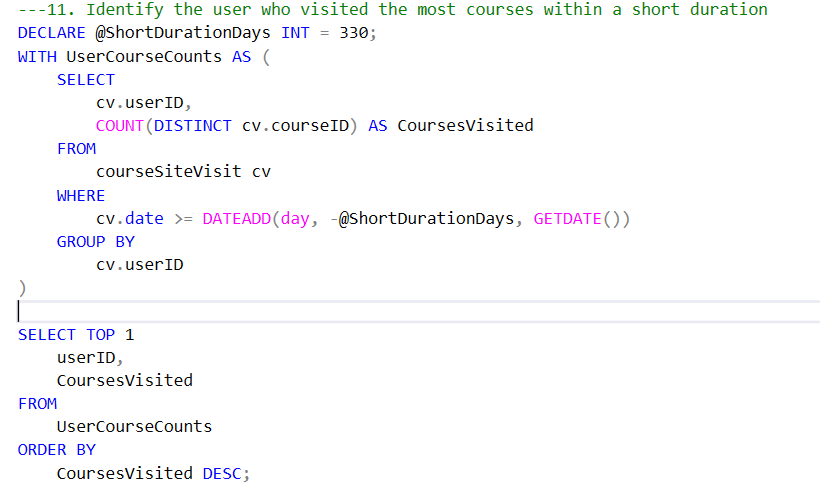
**Output:**



**Visualization:**

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1. **The user who visited the most courses within a short duration**



**Output:**

