Quang Tran

CIS 310-02

Prof. J. Guan

08 August 2017

Assignment 1

**Part C**

1. The major sources of redundancies in the table are the student information such as the names and ID numbers, and the class information, such as credit hours and classrooms. The more classes a student has, the more redundant these sources of data get.
2. To represent an update anomaly, let’s take the “Database Design” class as an example: if we update the professor on one student’s row, yet do not change the time and room, there is an inconsistency in the other two students’ records. Thus, an update anomaly is created once the existing field is revised.

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| **STU\_ID** | **STU\_NAME** | **CLASS CODE** | **CLASS\_NAME** | **CRED\_HRS** | **INSTR\_NAME** | **CLASS\_DAYS** | **CLASS\_TIMES** | **ROOM** |
| 1902921 | Tommy T. | CHNS 101 | Elementary Chinese 1 | 3 | L. Zeng | M-W-F | 11 - 11:50 AM | Bingham 111 |
| 1902921 | Tommy T. | AST 270 | Chinese Contributions | 3 | M. Wu | M-W-F | 12 - 12:50 PM | Bingham 220 |
| 1902921 | Tommy T. | CIS 310 | Database Design | 3 | J. Guan | M-W | 1 - 2:15 PM | Business 008 |
| 1902921 | Tommy T. | CIS 320 | Systems Analysis and Design | 3 | R. Barker | T-Th | 9:30 - 10:45 AM | Business 008 |
| 1902921 | Tommy T. | CLAW 301 | Commercial Law | 3 | M. Smith | T-Th | 2:30 - 3:45 PM | Business 211 |
| 1780662 | Travis B. | CIS 310 | Database Design | 3 | Guan | T-Th | 1 - 2:15 PM | Business 008 |
| 1780662 | Travis B. | CIS 350 | Infrastructure Technology | 3 | Zurada | T-Th | 11 AM - 12:15 PM | Business 008 |
| 1780662 | Travis B. | CJ 425 | Profiling Violent Crime | 3 | Baker | Online | Online | Online |
| 1780662 | Travis B. | GEOS 200 | The Global Environment | 3 | Biddle | Online | Online | Online |
| 1780662 | Travis B. | Comm 201 | Intro to Communication | 3 | Futrell | Online | Online | Online |
| 1882576 | Sean W. | 6311 | Database Design | 3 | J. Guan | M-W | 1 - 2:15 PM | Business 008 |
| 1882576 | Sean W. | 1658 | Capstone Semester in Finance | 3 | D. Dubofsky | M-W | 11 AM - 12:15 PM | Business 211 |
| 1882576 | Sean W. | 5904 | Elements of Calculus | 3 | W. Zeng | M-W-F | 8 - 8:50 AM | Nat. Sciences 112 |