Logo, company name

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Lab 17: Implementing Relationships in Mongo

LIS464-Applied Database Design

Information School, University of Wisconsin-Madison

**Deliverables:** Documents turned in to Canvas – images of pencil and paper sketches are fine, or you can type in this document and turn it in.

Each of the below three problems draw on examples outlined in the three mini-lectures. I recommend you complete them as you watch the minilectures.

Lecture 1:

* **Problem 1:** Using example 1 as a template, create a JSON document showing a simple field:value pair expressing the idea that one book has one publisher, but any given publisher may publish many books. Include two documents for two books from one publisher.

{

“\_id”: 001,

“book”: “Dummy’s Guide to Coding”,

“publisher”: “Publisher1”,

“pages”: 350

}

{

“\_id”: 002,

“book”: “Dummy’s Guide to Political Writing”,

“publisher”: “Publisher1”,

“pages”: 430

}

Lecture 2:

* **Problem 2**: Using example 3 and 4 as templates, use an array approach to express the 1:M relationship that one publisher publishes many titles. Include at least 3 book titles per publisher. Requirements: Use array approach, 2 documents describing two different publishers, list 3 books per publisher in arrays

{

“\_id”: 023,

“publisher”: “Jimmy Neutron”,

“age”: 40,

“books”: [“Diary of a Wimpy Kid”, “How to Train Your Dragon”, “Eragon”]

}

­­­­­­

{

“\_id”: 031,

“publisher”: “Oliver Twist”,

“age”: 11,

“books”: [“Basics of Quantum Physics”, “Captain Underpants”, “Twilight”]

}

Lecture 3:

* **Problem 3:** Using subdocuments example 4 as a model, sketch a JSON document with two subdocuments. The main document should be publisher. The two subdocument should be books published by that publisher. Use the simple subdocuments approach.

{

“\_id”: 048

“name”: “Santa Claus”,

“age”: “128”,

Book1 {

“name”: “A Christmas Carol”,

“pages”: 180,

“author”: “Charles Dickens”

}

Book2 {

“name”: “Dummy’s Guide to Coding”,

“pages”: 350,

“author”: “John Deere”

}

}