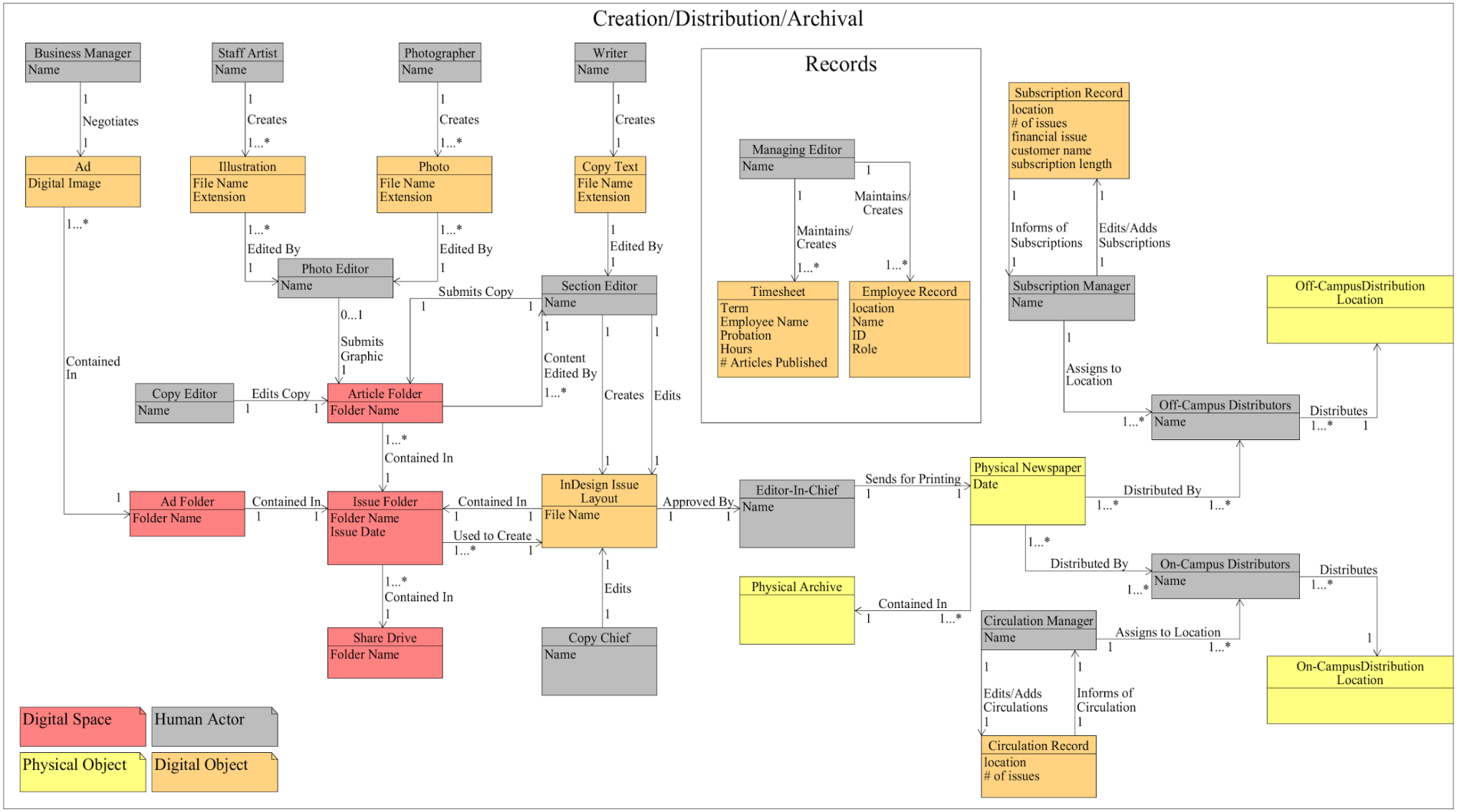
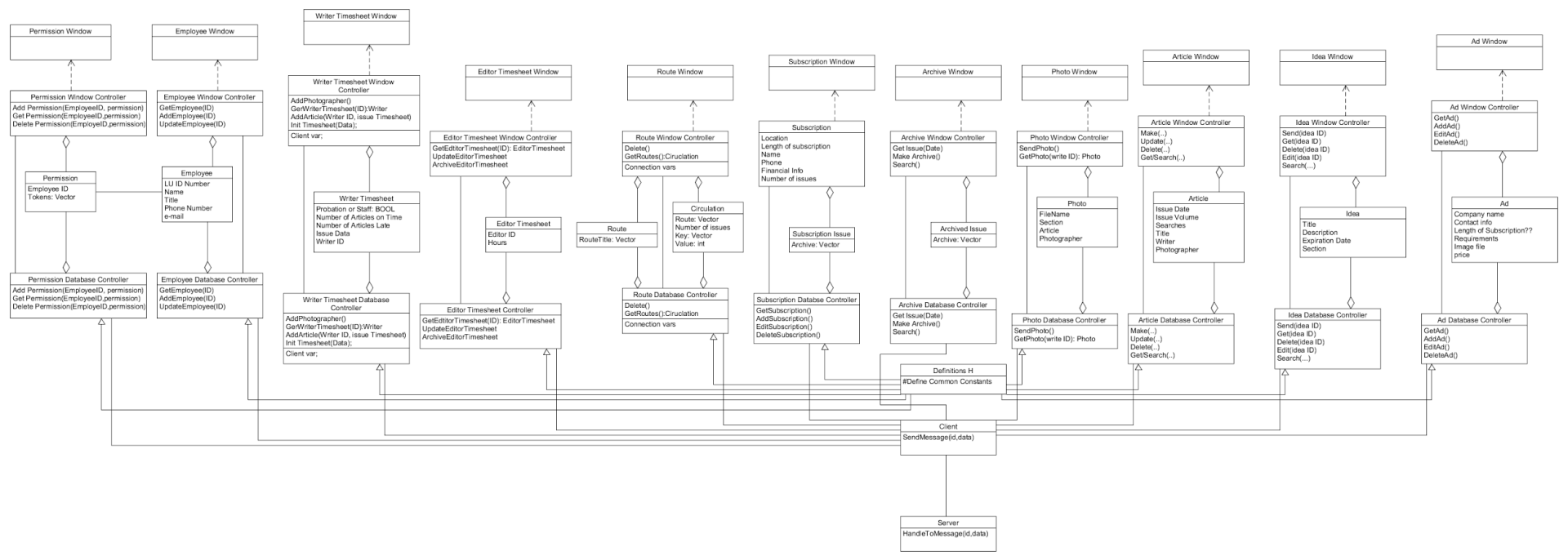
LAWRENTIAN

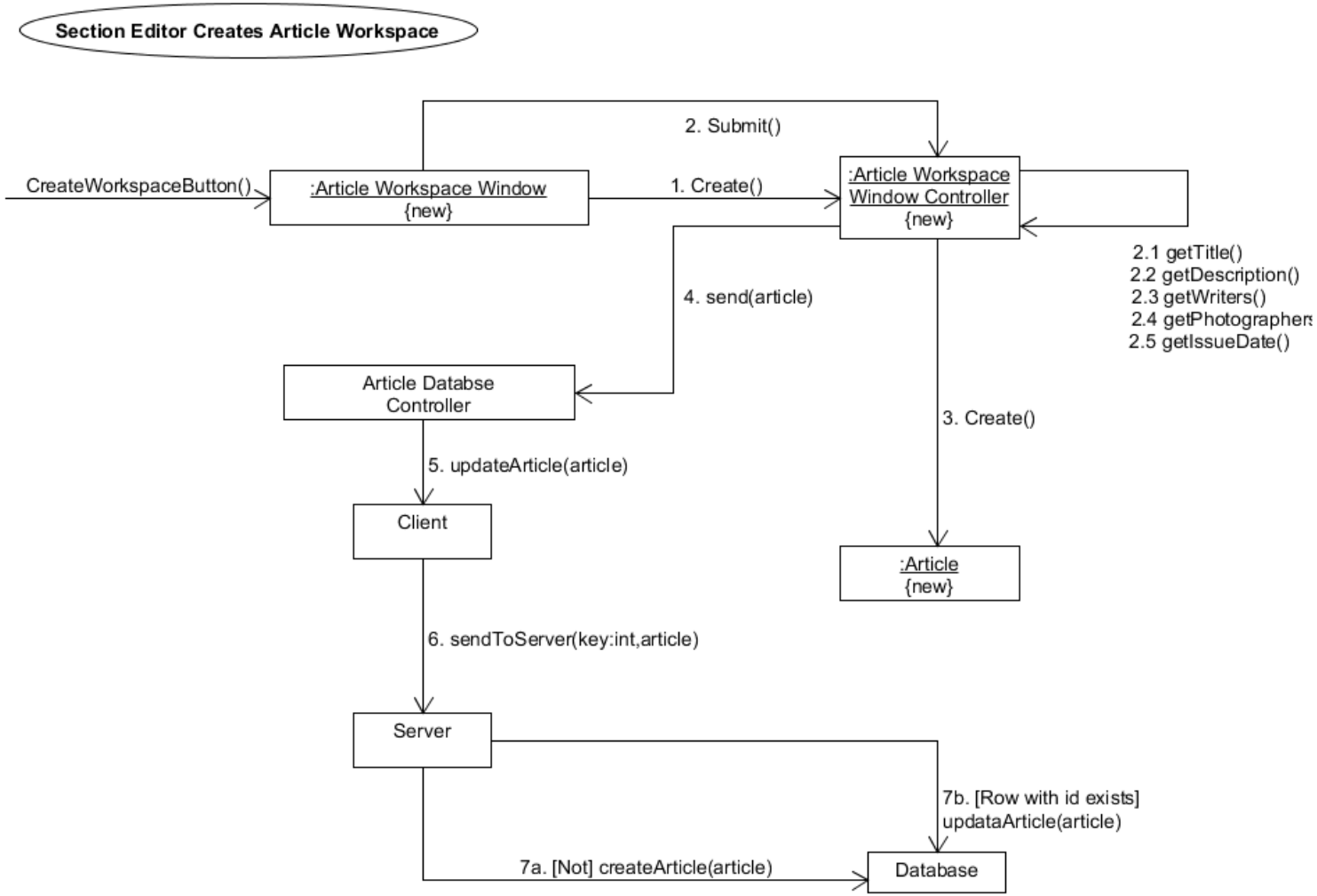
Iteration 1: System Design


Creation/Distribution/Archival
Business Manager
Name
Negotiates
Ad
Digital Image
Staff Artist
Name
Creates
Illustration
File Name
Extension
Edited By
Photographer
Name
Creates
Photo
File Name
Extension
Edited By
Writer
Name
Creates
Copy Text
File Name
Extension
Edited By
Photo Editor
Name
Submits Copy
Section Editor
Name
Submits
Graphic
Contained
In
Copy Editor
Name
Edits Copy
Article Folder
Folder Name
Content
Edited By
Creates
Edits
Ad Folder
Folder Name
Contained In
Issue Folder
Folder Name
Issue Date
Used to Create
InDesign Issue
Layout
File Name
Approved By
Share Drive
Folder Name
Edits
Copy Chief
Name
Records
Managing Editor
Name
Maintains/
Creates
Timesheet
Term
Employee Name
Probation
Hours
Articles Published
Employee Record
location
Name
ID
Role
Editor-In-Chief
Name
Sends for Printing
Physical Archive
Contained In
Subscription Record
location
# of issues
financial issue
customer name
subscription length
Informs of
Subscriptions
Edits/Adds
Subscriptions
Subscription Manager
Name
Assigns to
Location
Off-CampusDistribution
Location
Off-Campus Distributors
Name
Distributes
Physical Newspaper
Date
Distributed By
On-Campus Distributors
Name
Distributes
Circulation Manager
Name
Assigns to Location
Edits/Adds
Circulations
Informs of
Circulation
On-CampusDistribution
Location
Circulation Record
location
# of issues
Digital Space
Human Actor
Physical Object
Digital Object


Permission Window
Employee Window
Writer Timesheet Window
Permission Window Controller
Add Permission(EmployeeID, permission)
Get Permission(EmployeeID,permission)
Delete Permission(EmployeID,permission)
Employee Window Controller
GetEmployee(ID)
AddEmployee(ID)
UpdateEmployee(ID)
Writer Timesheet Window Controller
AddPhotographer()
GetWriterTimesheet(ID):Writer
AddArticle(Writer ID, issue Timesheet)
Init Timesheet(Data);
Client var;
Editor Timesheet Window
Route Window
Subscription Window
Archive Window
Photo Window
Article Window
Idea Window
Ad Window
Permission
Employee ID
Tokens: Vector
Employee
LU ID Number
Name
Title
Phone Number
e-mail
Writer Timesheet
Probation or Staff: BOOL
Number of Articles on Time
Number of Articles Late
Issue Data
Writer ID
Editor Timesheet Window Controller
GetEdittorTimesheet(ID): EditorTimesheet
UpdateEditorTimesheet
ArchiveEditorTimesheet
Route Window Controller
Delete()
GetRoutes():Circulation
Connection vars
Subscription
Location
Length of subscription
Name
Phone
Financial Info
Number of issues
Archive Window Controller
Get Issue(Date)
Make Archive()
Search()
Photo Window Controller
SendPhoto()
GetPhoto(write ID): Photo
Article Window Controller
Make(..)
Update(..)
Delete(..)
Get/Search(..)
Idea Window Controller
Send(idea ID)
Get(idea ID)
Delete(idea ID)
Edit(idea ID)
Search(...)
Ad Window Controller
GetAd()
AddAd()
EditAd()
DeleteAd()
Editor Timesheet
Editor ID
Hours
Route
RouteTitle: Vector
Circulation
Route: Vector
Number of issues
Key: Vector
Value: int
Subscription Issue
Archive: Vector
Archived Issue
Archive: Vector
Photo
FileName
Section
Article
Photographer
Article
Issue Date
Issue Volume
Searches
Title
Writer
Photographer
Idea
Title
Description
Expiration Date
Section
Ad
Company name
Contact info
Length of Subscription??
Requirements
Image file
price
Permission Database Controller
Add Permission(EmployeeID, permission)
Get Permission(EmployeeID,permission)
Delete Permission(EmployeID,permission)
Employee Database Controller
GetEmployee(ID)
AddEmployee(ID)
UpdateEmployee(ID)
Writer Timesheet Database Controller
AddPhotographer()
GetWriterTimesheet(ID):Writer
AddArticle(Writer ID, issue Timesheet)
Init Timesheet(Data);
Client var;
Editor Timesheet Controller
GetEdittorTimesheet(ID): EditorTimesheet
UpdateEditorTimesheet
ArchiveEditorTimesheet
Route Database Controller
Delete()
GetRoutes():Circulation
Connection vars
Subscription Database Controller
GetSubscription()
AddSubscription()
EditSubscription()
DeleteSubscription()
Archive Database Controller
Get Issue(Date)
Make Archive()
Search()
Photo Database Controller
SendPhoto()
GetPhoto(write ID): Photo
Article Database Controller
Make(..)
Update(..)
Delete(..)
Get/Search(..)
Idea Database Controller
Send(idea ID)
Get(idea ID)
Delete(idea ID)
Edit(idea ID)
Search(...)
Ad Database Controller
GetAd()
AddAd()
EditAd()
DeleteAd()
Definitions H
#Define Common Constants
Client
SendMessage(id,data)
Server
HandleToMessage(id,data)

Use of GRASP Patterns

- Window -> Controller
  - Controller, Low Coupling, High Cohesion
- Database Relation -> “Controller”
  - Low Coupling, High Cohesion
- Database “Controllers” create message that client sends to servers
  - Information Expert, Low Coupling, High Cohesion
- Article Workspace Controller creates Article
  - Creator, Low Coupling, High Cohesion


Section Editor Creates Article Workspace
2. Submit()
CreateWorkspaceButton()
:Article Workspace Window
{new}
1. Create()
:Article Workspace
Window Controller
{new}
2.1 getTitle()
2.2 getDescription()
2.3 getWriters()
2.4 getPhotographers
2.5 getIssueDate()
4. send(article)
Article Databse
Controller
3. Create()
5. updateArticle(article)
Client
:Article
{new}
6. sendToServer(key:int,article)
Server
7b. [Row with id exists]
updataArticle(article)
7a. [Not] createArticle(article)
Database