

TEAM?OAGS

DB Team Project with Line Numbers

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Version **1.0**

1 2 **TEAM?OAGS** (OnLine Art Gallery System) Web Site

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4 The **TEAM?OAGS** web site should be designed using these principles:

- 5 • Text must be grammatically sound and spelled correctly. Poor spelling loses
6 credibility points straight away. Ensure that there is plenty of well laid out textual
7 content on the site to attract search engines as well as to inform prospective
8 clients.
- 9 • Use keyword and key phrase rich text; that is, utilize copy that includes common
10 phrases that people would enter into search engines when performing a query.
- 11 • **TEAM?OAGS** needs to be viewable from at least IE and Firefox browsers.
- 12 • Images are a wonderful medium to assist in the online application, especially
13 useful to those clients with poor literacy levels or who are in a rush, as we all
14 seem to be these days. But remember, while a picture may be worth a thousand
15 words in the offline world, its worth next to nothing when it comes to search
16 engines as spiders do not 'see' pictures.
- 17 Image HTML coding should also contain 'alt' tags. This is a textual representation

18 of the image which is useful for the situations where the image doesn't load for
19 some reason. Search engines spiders also latch on to this content, especially if the
20 image is linked to another page. 'alt' text will also pop up when a visitor moves
21 their mouse over the image. Client requires that pictures and (not required) videos
22 be used in **TEAM?OAGS**.

- 23 • **TEAM?OAGS** site navigation should be simple and all the questions a consumer
24 may ask should be answered along the way. Where possible, adhere to the "three
25 click rule" - that is, a visitor should be able to access any information regarding
26 your service within 3 clicks of any other area of your web site.
- 27 • **TEAM?OAGS** should take advantage of the Javascript and Ajax technologies.
- 28 • **TEAM?OAGS** implements a live online support chat allowing communication of
29 guests and customers with **TEAM? OAGS** operators over the Internet in real
30 time directly from **TEAM?OAGS** web site. No chat information will be stored in
31 the database.
- 32 • **TEAM?OAGS** web site will have at least the following pages "**TEAM?OAGS**"
33 home page, "About Us" page, "Contact Us" page, "Testimonials" page with a

34 possible search function. **Testimonials are stored in the database. The search is**
35 **done by a stored procedure.**

36 • **TEAM?OAGS** is a **secure web application** with a relational database backend
37 **(TEAM?OAGS).**

38

39

40 **TEAM?** is a small art gallery that sells contemporary European and North American
41 fine art, including lithographs, high-quality reproduction prints, original paintings and
42 other artwork, and photographs. All of the lithographs, prints, and photos are signed and
43 numbered, and the original art is usually signed. **TEAM?** also provides art framing
44 services. It creates a custom frame for each artwork (rather than selling standardized,
45 premade frames) and is known for its excellent collection of frame stock.

46 **TEAM?** emphasizes reproduction artworks of European Impressionist, Abstractionist,
47 and Modernist artists such as Wassily Kandinsky and Henri Matisse. For original art,
48 **TEAM?** concentrates on Northwest School artists, such as Mark Tobey, Morris Graves,

49 GuyAnderson, and Paul Horiuchi, and produces shows of contemporary artists who work
50 in the Northwest School tradition or in Northwest Maritime art. The price of new
51 reproduction prints ranges up to \$1,000, and prices for contemporary artists range from
52 \$500 to \$10,000. The price of art from the Northwest School artists varies considerably,
53 depending on the artwork itself. Small pencil, charcoal, or watercolor sketches may sell
54 for as little as \$2,000, whereas major works can range from \$10,000 to \$100,000. Very
55 occasionally, **TEAM?** may carry Northwest School art priced up to \$500,000, but art
56 priced above \$250,000 is more likely to be sold at auction by a major art auction house.
57 **TEAM?** has been in business for 30 years and has one full-time owner, three salespeople,
58 and two workers who make frames, hang art in the gallery, and prepare artwork for
59 shipment.
60 **TEAM?** holds openings and other gallery events to attract customers to the gallery.
61 **TEAM?** owns all of the art that it sells—even sales of contemporary artwork is treated
62 as a purchase by **TEAM?** that then is resold to a customer. **TEAM?** does not take items
63 on a consignment basis.
64 The requirements for the **TEAM?** application are as follows:

65 First, both the owner and the salespeople want to keep track of **Customers'** last and first
66 names, addresses (street, city, state, zip, country), phone numbers (area code and phone
67 number), and e-mail addresses by requesting a **Customers Report** and want to keep track
68 of **Artists'** last and first names and nationality by requesting an **Artists Report**. They
69 also want to know which artists have appeal to which customers by requesting a
70 **Customer Artists Preferences Report** where the Customer Id is the input to such report.
71 The salespeople use this information to determine whom to contact when new art arrives
72 and to personalize verbal and e-mail communications with their customers.
73 When **TEAM?** purchases new art, data about the artist, the nature of the work, the
74 acquisition date, and the acquisition price are recorded in the database backend. Also, on
75 occasion, **TEAM?** repurchases art from a customer and resells it, thus a work may appear
76 in the **TEAM?** gallery multiple times.
77 When art is repurchased, the artist and work data are not reentered, but the most recent
78 acquisition date and price are recorded.
79 There is a policy at **TEAM?** to set the value of AskingPrice equal either to twice the
80 AcquisitionPrice or to the AcquisitionPrice plus the average net gain for sales of this art

81 in the past, whichever is greater. An AFTER database trigger

82 **TRANSACTION_AskingPriceInitialValue** is to implement this policy. After declaring

83 program variables, the trigger reads the TRANSACTION table to find out how many

84 TRANSACTION rows exist for this work. Because this is an AFTER trigger, the new

85 TRANSACTION row for the work will have already been inserted. Thus, the count will

86 be one if this is the first time the work has been in the gallery. If so, the new value of

87 SalesPrice is set to twice the AcquisitionPrice.

88 If the user variable rowCount is greater than one, then the work has been in the gallery

89 before. To compute the average gain for this work, the trigger uses an

90 **ArtistWorkNetView** view to compute SUM(NetProfit) for this work. The sum is placed

91 in the variable sumNetProfit. Notice that the WHERE clause limits the rows to be used in

92 the view to this particular work. The average is then computed by dividing this sum by

93 rowCount minus one.

94 In addition, when art is sold a TRANSACTION record with the purchase date,

95 acquisition price, date acquired, sales price, asking price, and identity of the purchasing

96 customer are stored in the database backend.

97 **TEAM?** has a special interest in Mexican painters and never discounts the price of their
98 works. Thus, the SalesPrice of a work must always be at least the AskingPrice. To
99 enforce this rule, **TEAM?** database has an insert and update trigger
100 **TRANSACTION_CheckSalesPrice** on TRANSACTION that checks to see if the work
101 is by a Mexican painter. If so, the SalesPrice is checked against the AskingPrice. If it is
102 less than the AskingPrice, the SalesPrice is reset to the AskingPrice. This, of course, must
103 happen when the art work is actually being sold, and the customer charged the full
104 amount!
105
106 Salespeople want to examine past purchase data so that they can devote more time to the
107 most active buyers by requesting a **Past Purchase Report**. They also sometimes use the
108 purchase records to identify the location of artworks they have sold in the past by
109 requesting a **Past Purchases Artwork Location Report**.
110 **TEAM?** wants to hire you to create **TEAM?OAGS** web application for these
111 requirements.

112 For marketing purposes, **TEAM?** wants its **TEAM?OAGS** web application to provide a
113 list of artists and works that have appeared in the gallery by requesting an **Artist and**
114 **Works Report**. The owner also would like to be able to determine how fast an artist's
115 work sells and at what sales margin by requesting a **Speed of Sale Report** given an artist
116 Id. The **TEAM?OAGS** web application also should display current inventory on a web
117 page that customers can access via the Internet by requesting a **Current Inventory**
118 **Report**.
119 **TEAM?OAGS** is a secure web application where owner, sales people, customers have
120 accounts and have the ability to modify their own information (not the USERNAME,
121 PASSWORD, EMAIL ADDRESS which will be assigned by the **TEAM?OAGS** web
122 application manager/DBA. DBA has access to **New Artist Forms** and **New Customer**
123 **Forms** (it should include the artist's interested nationality) to allow them to add new
124 artists and customers.

125

126 The contract states that, at the acceptance test, a scenario of usage of the **TEAM?OAGS**
127 will be given to you. **Data about customers, art work, artists, etc. will be given to the**
128 **DBAs for your TEAM?.**

129

130 The client desires that **TEAM?OAGS** be designed and implemented using OO paradigm.

131 Formal Analysis, SRS (Software Requirements Specification) document needs to be

132 signed by the **TEAM?** and the client BEFORE any design is started. A SPMP (Software

133 Project Management Plan) document needs to be delivered before the actual development

134 is started.

135

136 A prototype is highly desirable. Graphical User Interfaces, Web Site Design, each Page

137 Design can expedite the development process.

138

139 **Coordinate with the database backend DBAs in clearly separating what is going to**

140 **be placed in the database and what will be implemented in the database (backend)**

141 versus what will be implemented in the **TEAM?OAGS** web application (front end).

142

143 An MVC (3 tier architecture) is required.

144 NOTE: This requirements document “SE Team Project with Line Numbers.doc” might

145 go through revisions based on your questions. There might be missing requirements;

146 there might be unclear requirements, or conflicting requirements. I can take 5 minutes

147 each class to answer possible questions.

Document Control

CHANGE HISTORY

Revision	Name	Date	Description
2.0	Dr. Victoria Hilford Client		

DOCUMENT STORAGE

This file is stored in SVN at <http://limi.cs.uh.edu/COSC4351/team?/DB TEAM PROJECT DELIVERABLES/DB Team Project with Line Numbers.doc>.