**Chapter 2 - Sample Project: Applying Planning Techniques to The Art Gallery Project**

**Step 2.1 - Design (write out) the Data Dictionary for The Art Gallery**

Write out a user-oriented data dictionary, consisting of an alphabetical list of every data item referenced in any input document, report or transaction, and an informal definition for each term. Do not group the items by the forms they came from, the reports they appear on, or the transactions that use them. Arrange them in strict alphabetical order regardless of their origin.

The user-oriented data dictionary for The Art Gallery is as follows:

**amountRemittedtoOwner** The dollar amount of money sent to an owner for the sale of an artwork.

**artistAddress** The mailing address of an artist.

**artistAreaCode** The telephone area code of an artist.

**artistCity** The city of the mailing address of an artist.

**artistFirstName** The given first name that an artist uses.

**artistInterviewDate** The date an artist was interviewed by a representative of the gallery.

**artistInterviewerName** The first and last name of the gallery representative who interviewed an artist.

**artistLastName** The last (family) name of an artist.

**artistPhone** The complete telephone number of the artist

**artistSalesLastYear** The total dollar amount of sales of an artist’s works during the entire previous year.

**artistSalesYearToDate** The total dollar amount of sales of an artist’s works from the first day of the current year to the date of the report or transaction on which it appears

**artistSocialSecurityNumber** The social security number of an artist

**artistState** The state of the mailing address of an artist

**artistStreet** The house number and street of the mailing address of an artist.

**artistTelephoneNumber** The telephone number of an artist, not including area code.

**artistTotalSalesforPeriod** The total dollar amount of sales of an artist’s works for the period covered in a report or transaction

**artistTotalAskingPriceforPeriod** The total dollar value of an artist’s unsold works for sale in the gallery for the period covered in a report or transaction, computed as the sum of their asking prices,

**artistZip** The postal zip code of the mailing address of an artist.

**askingPrice** The asking price of a work of art.

**buyerAddress** The mailing address of a buyer of an artwork of the gallery.

**buyerAreaCode** The telephone area code of a buyer of an artwork of the gallery..

**buyerCity** The city of the mailing address of a buyer of an artwork of the gallery.

**buyerFirstName** The first name of a buyer of an artwork of the gallery.

**buyerLastName** The last name of a buyer of an artwork of the gallery.

**buyerPhone** The complete telephone number of a buyer of an artwork of the gallery.

**buyerState** The state of the mailing address of a buyer of an artwork of the gallery.

**buyerStreet** The house number and street of the mailing address of a buyer of an artwork of the gallery.

**buyerTelephoneNumber** The telephone number of a buyer of an artwork of the gallery, not including area code.

**buyerZip** The postal zip code of the buyer of a work of art.

**collectionArtistFirstName** The first name of the artist featured in a group of artworks owned by a collector.

**collectionArtistLastName** The last name of the artist featured in a group of artworks owned by a collector.

**collectionMedium** The medium used for a group of artworks owned by a collector

**collectionStyle** The style of a group of artworks owned by a collector.

**collectionType** The type of a group of artworks owned by a collector

**collectorAddress** The mailing address of a collector of works of art.

**collectorAreaCode** The telephone area code of a collector of works of art.

**collectorCity** The city of the mailing address of a collector of works of art.

**collectorFirstName** The given first name of a collector of works of art.

**collectorInterviewDate** The date a collector of works of art was interviewed by a representative of the gallery.

**collectorInterviewerName** The first and last name of the representative of the gallery who interviewed a collector of works of art.

**collectorLastName** The last (family) name of a collector of works of art.

**collectorPhone** The complete telephone number of a collector of works of art **collectorSalesLastYear** The total dollar amount of sales of the collectors’ artworks during the entire previous year.

**collectorSalesYearToDate** The total dollar amount of sales of the collecor’s artworks from the first day of the current year to the date of the report or transaction on which it appears.

**collectorSocialSecurityNumber** The social security number of a collector of works of art.

**collectorState** The state of the mailing address of a collector of works of art.

**collectorStreet** The house number and street of the mailing address of a collector of works of art.

**collectorTelephoneNumber** The telephone number of a collector of works of art, not including area code

**collectorTotalSalesforPeriod** The total dollar amount of sales of the collector’s works for the period covered in a report or transaction

**collectorTotalAskingPriceforPeriod** The total dollar value of the collector’s unsold works for sale in the gallery for the period covered in a report or transaction., computed as the sum of their asking prices,

**collectorZip** The postal zip code of the mailing address of a collector of works of art.

**potentialCustomerAddress** The mailing address of a potential customer of the gallery.

**potentialCustomerAreaCode** The telephone area code of a potential customer of the

gallery.

**potentialCustomerCity** The city of the mailing address of a potential customer of the gallery.

**potentialCustomerDateFilledIn** The date a customer information form was filled in.

**potentialCustomerFirstName** The first name of a potential customer of the gallery.

**potentialCustomerLastName** The last name of a potential customer of the gallery.

**potentialCustomerPhone** The complete telephone number of a potential customer of the gallery.

**potentialCustomerState** The state of the mailing address of a potential customer of the gallery.

**potentialCustomerStreet** The house number and street of the mailing address of a potential customer of the gallery.

**potentialCustomerTelephoneNumber** The telephone number of a potential customer of the gallery, not including area code.

**potentialCustomerZip** The postal zip code of the mailing address of a potential customer of the gallery

**dateListed** The date a work of art is first offered for sale in the gallery.

**dateReturned** The date a work of art is returned to its owner.

**dateShown** The date a work of art is featured in an art show by the gallery.

**dateOfReport** The date that a report was generated

**medium** The medium of a work of art. Examples of valid values are oil, pastel, watercolor, watermedia, acrylic, marble, steel, copper, wood, fiber, other

**ownerAddress** The mailing address of the owner of a work of art.

**ownerAreaCode** The telephone area code of the owner of a work of art.

**ownercity** The city of the mailing address of the owner of a work of art.

**ownerFirstName** The given first name that the owner of a work of art uses.

**ownerLastName** The last (family) name of the owner of a work of art.

**ownerPhone** The complete telephone number of the owner of a work of art.

**ownerSocialSecurityNumber** The social security number of the owner of a work of art

**ownerState** The state of the mailing address of the owner of a work of art

**ownerStreet** The house number and street of the mailing address of the owner of a work of art.

**ownerTelephoneNumber** The telephone number of the owner of a work of art, not including area code.

**ownerZip** The postal zip code of the mailing address of the owner of a work of art.

**preferredArtist** The name of the artist chosen as a preference by a potential customer of the gallery.

**preferredMedium** The medium chosen as a preference by a potential customer of the gallery

**preferredStyle** The style chosen as a preference by a potential customer of the gallery

**preferredType** The type chosen as a preference by a potential customer of the gallery

**purchasesLastYear** The total dollar amount of sales to a buyer during the entire previous year.

**purchasesYearToDate** The total dollar amount of sales to a buyer from the first day of the current year to the date of the report or transaction on which it appears

**reportStartingDate** The date chosen as the earliest date for information to be used in a report.

**reportEndingDate** The date chosen as the latest date for information to be used in a report.

**saleDate** The date a work of art was sold by the gallery.

**saleInvoiceNumber** The number printed on the invoice for a sale of a work of art.

**salePrice** The price at which a work of art was sold by the gallery.

**salesPersonAddress** The full address of a sales associate who works in the gallery.

# salesPersonFirstName The given first name of a sales associate who works in the gallery.

**salesPersonLastName** The last (family) name of a sales associate who works in the gallery

**salesPersonSocialSecurityNumber** The social security number of a sales associate who works in the gallery.

**saleSalesPersonCommission** The dollar amount of commission for a salesperson for the sale of a work of art.

**saleSalesPersonName** The first and last name of the salesperson who sold a work of art.

**saleTax** The dollar amount of sales tax for the sale of an artwork.

**saleTotal** The total dollar amount of a sale, including price and tax, for an artwork

**salespersonCommissionForPeriod** The total dollar amount of commission earned by a salesperson for a specific period.

**salespersonTotalSalesForPeriod** The total dollar amount of sales, not including tax, made by a salesperson during a specific period.

**showClosingDate** The final date that an artshow is open to the public.

**showFeaturedArtist** The name of an artist featured in an artshow.

**showTheme** The theme of an artshow.

**showTitle** The title given to an artshow.

**showOpeningDate** The first date that an artshow is open to the public.

**size** The size of a work of art, expressed in inches. For two-dimensional works, given as length by width; for three-dimensional works, given as length by width by height

**status** The sales status of a work of art. Possible values are sold or unsold.

**style** The artistic style of a work of art. Examples of valid values are contemporary, impressionist, folk, other.

**title** The title of a work of art.

**totalAllSalesForWeek** The total dollar amount of sales for the gallery for a specific week, not including tax.

**totalAskingPriceForPeriod** The sum of asking prices for all works during the period chosen for a report.

**type** The type of a work of art. Examples of valid values are painting, sculpture, collage, other.

**usualMedium** The medium the artist usually works in. Examples of valid values are oil, pastel, watercolor, watermedia, acrylic, marble, steel, copper, wood, fiber, other

**usualStyle.** The usual artistic style of the artist’s works. Examples of valid values are contemporary, impressionist, folk, other.

**usualType** The type of artwork the artist normally produces. Examples of valid values are painting, sculpture, collage, other.

**yearCompleted** The year that a work of art was completed.

**Step 2.2 – Review and update the list of Assumptions (as needed).**

1. The list of assumptions has no changes at this point. It remains as shown in Step 1.4.

**Step 2.3 – Design (write out) a cross-reference table, showing what data items appear on what forms, reports, or transactions.**

To construct the cross-reference table, write the names of all forms, reports, and transactions as column headings across the top of the table. Write the items from the data dictionary down the first column, making a form similar to a spreadsheet. If a data item on a given row appears on a particular form, report, or transaction, place a check mark in the cell for the corresponding column-row intersection.

The cross-reference table for The Art Gallery appears in the spreadsheet file called *FigureS.2.1CrossReferenceTable-Excel file* stored in this directory. A portion of the table appears here:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Document or Form on Which Item Appears** | | | | | |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | ArtistInfo | CollerInfo | ArtwrkInfo | SaleInv | MailList | ActvArtsts | IndArtstSa | CollerSum | IndColSal | WksForSal | SalThisWk | BuyerSals | PrefCust | SalpPerfor | AgedArt | PaymtStub | ArtShow |
| **Item** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| amountRemittedtoOwner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| artistAddress |  |  | X |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| artistAreaCode |  |  | X |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| artistCity |  |  | X |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| artistFirstName |  |  | X |  | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X |
| artistInterviewDate |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| artistInterviewerName |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| artistLastName |  |  | X |  | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X |
| artistPhone |  |  | X |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| artistSalesLastYear |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| artistSalesYearToDate |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| artistSocialSecurityNumber |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| artistState |  |  | X |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| artistStreet |  |  | X |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| artistTelephoneNumber |  |  | X |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| artistTotalSalesforPeriod |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |
| artistTotalAskingPriceforPeriod |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |
| artistZip |  |  | X |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| askingPrice |  |  |  |  | X |  |  |  | X |  | X | X |  |  |  |  | X |  | X |
| buyerAddress |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| buyerAreaCode |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| buyerCity |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| buyerFirstName |  |  |  |  |  | X |  |  |  |  |  |  | X | X |  |  |  |  |  |
| buyerLastName |  |  |  |  |  | X |  |  |  |  |  |  | X | X |  |  |  |  |  |
| buyerPhone |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| buyerState |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| buyerStreet. |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| buyerTelephoneNumber |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| buyerZip |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |  |
| collectionArtistFirstName |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectionArtistLastName |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectionMedium |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectionStyle |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectionType |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectorAddress |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorAreaCode |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorCity |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorFirstName |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorInterviewDate |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectorInterviewerName |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectorLastName |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorPhone |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorSalesLastYear |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |
| collectorSalesYearToDate |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |
| collectorSocialSecurityNumber |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| collectorState |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorStreet |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorTelephoneNumber |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| collectorTotalSalesforPeriod |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |
| collectorTotalAskingPriceforPeriod |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |
| collectorZip |  |  |  | X |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| dateListed |  |  |  |  | X |  |  |  | X |  | X | X |  |  |  |  | X |  |  |
| dateReturned |  |  |  |  |  |  |  |  | X |  | X |  |  |  |  |  |  |  |  |
| dateShown |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |
| dateOfReport |  |  |  |  |  |  |  | X | X |  | X | X |  | X |  |  | X |  |  |
| medium |  |  |  |  | X |  |  |  | X |  | X | X |  |  | X |  |  | X |  |
| ownerAddress |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |  | X |  |
| ownerAreaCode |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ownercity |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |  | X |  |
| ownerFirstName |  |  |  |  | X | X |  |  |  |  |  |  | X |  |  |  | X | X |  |
| ownerLastName |  |  |  |  | X | X |  |  |  |  |  |  | X |  |  |  | X | X |  |
| ownerPhone |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  | X |  |  |
| ownerSocialSecurityNumber |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| ownerState |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| ownerStreet |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| ownerTelephoneNumber |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  | X |  |  |
| ownerZip |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| potentialCustomerAddress |  |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |
| potentialCustomerAreaCode |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |
| potentialCustomerCity |  |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |
| potentialCustomerDateFilledIn |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |
| potentialCustomerFirstName |  |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |
| potentialCustomerLastName |  |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |
| potentialCustomerPhone |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |
| potentialCustomerState |  |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |
| potentialCustomerStreet |  |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |
| potentialCustomerTelephoneNumber |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |
| potentialCustomerZip |  |  |  |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |  |
| preferredArtist |  |  |  |  |  |  | X |  |  | X |  |  |  |  | X |  |  |  |  |
| preferredMedium |  |  |  |  |  |  | X |  |  | X |  |  |  |  | X |  |  |  |  |
| preferredStyle |  |  |  |  |  |  | X |  |  | X |  |  |  |  | X |  |  |  |  |
| preferredType |  |  |  |  |  |  | X |  |  | X |  |  |  |  | X |  |  |  |  |
| purchasesLastYear |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| purchasesYearToDate |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| reportStartingDate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |
| reportEndingDate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |
| saleDate |  |  |  |  |  | X |  |  | X |  | X |  | X |  |  | X |  |  |  |
| saleInvoiceNumber |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |
| salePrice |  |  |  |  |  | X |  |  | X |  | X |  | X |  |  | X |  | X |  |
| salesPersonAddress |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |
| salesPersonFirstName |  |  |  |  |  | X |  |  |  |  |  |  | X |  |  | X |  | X |  |
| salesPersonLastName |  |  |  |  |  | X |  |  |  |  |  |  | X |  |  | X |  | X |  |
| salesPersonSocialSecurityNumber |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |
| saleSalesPersonCommission |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |
| saleSalesPersonName |  |  |  |  |  | X |  |  |  |  |  |  | X |  |  |  |  | X |  |
| saleTax |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  | X |  |
| saleTotal |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  | X |  |
| salespersonCommissionForPeriod |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |
| salespersonTotalSalesForPeriod. |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  | X |  |  |  |
| showClosingDate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| showFeaturedArtist |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| showTheme |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| showTitle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| showOpeningDate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| size |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| status |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| style |  |  |  |  | X |  |  |  | X |  | X | X |  |  | X |  |  | X |  |
| title |  |  |  |  | X | X |  |  | X |  | X | X | X | X | X | X | X | X | X |
| totalAllSalesForWeek |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |
| totalAskingPriceForPeriod |  |  |  |  |  |  |  |  | X |  | X | X |  | X |  |  |  |  |  |
| type |  |  |  |  | X |  |  |  | X |  | X | X |  |  | X |  |  | X |  |
| usualMedium |  |  | X |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| usualStyle |  |  | X |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| usualType |  |  | X |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| yearCompleted |  |  |  |  | X |  |  |  | X |  | X |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Figure S.2.1 - Cross-reference table for the Art Gallery

**Step 2.4 - Create a project management chart using either Gantt or PERT format:**

We can use a project management tool such as MS Project to make a chart that lists the major steps of the project and assign a timeline for the completion of the entire project, whether done by an individual or by a group. The Visio file called *FigureS.2.2GanttChart-Visio file* stored in this directory shows a simplified diagram for completion of parts of the database project for The Art Gallery as a Gantt chart created using Microsoft Visio. If you do not have Visio, you can open this file using a browser. We assume that there are three people (listed under Resources) working on the project. The diagram is also shown below.



**Figure S.2.2**: Gantt Chart for The Art Gallery Database Project