# Worksheet 1 System analysis methods

**Task 1**

Imagine that you are a systems analyst who has been asked to develop a website for a small group of artists called “Dedham Artists Group” who want to be able to sell their artworks on the Internet. The waterfall lifecycle model will be used to develop this system.

1. A meeting with the customer, the artist who is in charge of organising this project,   
has been arranged.

(a) What documents or websites will you look at as part of the software   
development process?

Other art websited to get an idea of how art websites should be like

What artworks they want to put on for sale right now

The types of artworks they have – to make different sections for different art

If online orders are to be accepted

(b) Make a list of questions that you will ask the customer.

How does the customer want their website to look like – maybe the colours that would fit in with their artwork to make it look more appealing to people who consider purchasing

Contents – like if they want to have certain pages with different details

(c) Is there anyone else you would like to interview to find out more about   
the requirements?

Other artists in the group to see if they have any ideas regarding any other functionality they want in the website that would make it good since the lead artist wont be able to come up with every idea they need, this needs to fit the needs of the whole group

(d) Suggest some headings that you will have in your report on User Requirements/System Specification

Colours to use

Sections (names of each page on website)

Quality of life requests by customer (the artgroup)

Functions needed (purchase buttons, delivery etc)

Contents needed (text content, like recommendations and explanations of different artwork)

2. List some of the decisions you will have to make as you start the design phase of this project. What software tools or packages will you consider using?

What colours to use in the final website visualisation.

The extras, quality of life / requested features that are able to be implemented, or would work with the website, since not all of the extra features requested will be able to be added since not all will be within the programmer’s ability, or achievable with the accessible tools.

HTML, JavaScript, CSS, these are needed for the website itself since HTML will be needed to add the content on the website, including the artworks that need to be sold

JavaScript is needed to make the pages that enable customers to buy from the website

CSS is needed to make the website look appealing to customers so they are enticed into purchasing

List some of the documentation you will produce at the end of the design stage.

The website’s template (how it will look like)

The decided website features that will be added (from the extras)

Layout of website and where what will be, like where the artwork section would be, maybe where an “about us” or “help” section would be, and how they will be accessed, e.g by clicking on buttons for purchases, then taking you to a transactions page once clicked

**Task 2**

3. When the website described in Task 1 is completed and shown to the user, it turns out that some of the requirements have not been well understood and it is not exactly what the customer expected.

At what stage did things probably start to go wrong?

Analysis, since after analysis the user is no longer very much in touch with the project until end product is achieved.

How could this situation have been avoided?

By making all the requirements clear in the original analysis stage, or by using a different model, the spiral, which is good for when a clear idea of requirements is not known

**Task 3**

4. Draw a diagram representing the Spiral model.

Analysis, design, implementation, evaluation

Then make another prototype with same steps

Repeat until a desired product is obtained

5. Draw a diagram representing the Agile model

Plan, develop, test, demonstrate to customer, repeat for new version using the old version as template and foundation for the next version

6. Fill in the table by specifying which model each of the following statements describes (Waterfall, Spiral or Agile)

|  |  |  |
| --- | --- | --- |
|  | **Statement** | **Model** |
| 1 | This model is good for small software projects where at least some of the functions need to be implemented quickly | Agile |
| 2 | There is not much user involvement in this model after the Analysis stage | Waterfall |
| 3 | This model uses prototyping, with the prototype being refined at each successive stage | Spiral |
| 4 | Changes in requirements after the Analysis stage are difficult to include and may mean repeating several stages in the development process | Waterfall |
| 5 | Working software is delivered frequently, often in weeks rather than months | Agile/Spiral |
| 6 | This is a linear model in which each stage is separate and is completed and documented before the next stage begins | Waterfall |
| 7 | The finished product takes longer to develop than other models because of the time consuming process of getting customer feedback and making amendments | Spiral |
| 8 | Each version of the software builds on the previous version, adding functionality each time | Agile |
| 9 | This model works well for small projects in which the requirements are clearly understood | Waterfall |
| 10 | Fast completion and installation of more and more parts of the project lead to customer satisfaction | Agile |