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| **D** | **Software development vocab** | |
| **Defensive design** | | An approach to programming which tries to anticipate and protect against misuse by the end user through a combination of *authentication*, *data validation,* *error trapping* and *input sanitisation* |
| **Maintainability** | | The ability for code to be maintained easily by eg *commenting*, using *functions*, intuitive variable names, indentation and writing *documentation* |
| **Maintenance** | | Changing code to update and repair it |
| **Auto-documentation** | | A programming tool which helps to create summary information about a program |

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| **B** | **Software development processes** | |
| **Input** | | Any method of introducing data to a computer |
| **Output** | | Any display or transmission of data from a computer |
| **Process** | | A change of state of a computer which does not involve an input or an output |
| **Execution order** | | Input ⇒ Process ⇒ Output |
| **Planning order** | | Output ⇒ Input ⇒  Process |

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| **C** | **Defensive Design vocab** | |
| **Authentication** | | A process for checking the identity of the user |
| **Data validation** | | As data is inputted, it is checked to make sure it is the correct data type, length, format etc |
| **Error trapping** | | Planning for erroneous inputs which may be valid but out of range |
| **Input sanitisation** | | Removing unwanted characters from entered data to protect against SQL injections |

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| **A** | **Software development stages** | |
| **Analysis** | | Looking at a problem, decomposing it into sub problems, abstracting into essential points and spotting patterns, then writing success criteria for solving the problem |
| **Design** | | Planning the solution to a problem, including pseudocode for algorithms and validation for data entered |
| **Development / Implementation** | | Practical application of a design and its subsequent development |
| **Testing** | | Making sure a program works under various conditions |
| **Documentation** | | Clear evidence of and information about a product or activity |
| **Evaluation** | | Judgement of the success of a product with reference to the success criteria written in the analysis |

Software Development and Defensive Design