**Equivalent Partitioning: email address**

Domain validation:

* valid domain
* invalid domain

Domain validation:

* without special characters -> valid
* with special characters -> invalid

Email format:

* with @ -> valid
* without @ -> invalid

Maximum length:

|0|1 320|321 +infinite

Inv. Valid Invalid

**LMS Level 1**

|  | **Static testing Technique** | **Dynamic Testing Technique** |
| --- | --- | --- |
| **Description** | Testing of software without running the code - Checking of documents (like SRS, for example) and evaluation of code quality) | Testing of software by running the code - evaluation of code behavior during the run by its response to variable and changeable inputs |
| **Advantage 1** | Performed in early stages of development - saves time and money and avoid errors later on | Allows the detection of difficult and complex defects |
| **Advantage 2** | Find the source of the error more easily - errors can be fixed more easily | Can be used to test the functionality of the software at early development stages |
| **Advantage 3** | Allows for a better communication between team members - give developers a better idea of what is expect from the software | Allows to detect security threats and defects that wouldn’t be possible to find through static testing |
| **Limitation 1** | Can take a lot of time, since most of it is done manually | It takes a lot of time, since all the code needs to be run |
| **Limitation 2** | Some defects cannot be easily found - related to the performance of the software or the security, for example | It requires more resources, so it can be more expensive |
| **Limitation 3** | Testers must have a lot of experience to perform more accurate tests and to find the defects more easily | It's more difficult to find the root cause of the defect |
| **Conclusion** | Static testing depends heavily on the tester performing it, since it requires a lot of experience to find the defects more easily. But the defects found using this technique can be easily linked to its root cause and can be fixed quicker, easier and more effectively | Dynamic testing allows testing features of the software that are not possible to test using static testing (security, performance, …). But when a defect is found, it is more difficult to identify the root cause and, therefore, more difficult to fix the defect. |