# Overview of Existing / Similar Solutions

A concise overview of the currently available solution consists of:

* Supervisors fill in area forms.
* Students fill in preference forms.
* Compiled data is saved as csv files.
* Allocation is performed.
* Results are once again stored as csv files.
* Final allocations are sent to students.

The current system being utilised by the University of Malta differs in procedure for allocation, in contrast with the proposed system to be developed. The current process begins with manual entry, as each supervisor must fill in the details for each individual area in a form. The form is split into parts, including, the title for the proposed area, primary supervisor as well as any known co-supervisors, followed by all details in relation to the area. To expand on these details, they include, some keywords, a brief description of what is expected, and any resources that may be required. It is important to emphasize that this process must be repeatedly carried out for each individual area offered by any given supervisor.

With regards to students, the preference form is filled manually. The process involves, listing the preferences in order from first to sixth, whilst also associating supervisors to a selected area entered onto the form.

The next step involves manual input of both the area and preference forms into a csv format, a crucial step that demands repeated validation in order to ensure all data gathered is correct before performing the allocation. If this step is not treated with caution, the allocation process may have to be completely restarted upon detecting an error.

The secretaries are the sole individuals responsible for handling the management of allocations. In the case that this role were to be assigned to new parties, proper guidance and training is a must. Moreover, this is a process that must be performed annually, leading to the nonoptimal appropriation of time and resources.

This issue is intended to be tackled through the implementation of authorization segregated by roles within the university, along with optimisation methods to be discussed. As a result of facilitating such processes, and ensuring optimal employment of resources, the primary aim is to ensure a significant improvement in allocation time, as well as eliminating repetitive or redundant tasks.