When dealing with commercial software, there are a number of ethical concerns that need to be considered. During the development of the St. Olaf Task Manager Calendar Application, we considered 3 primary ethical implications of our work. These include the issues of data-privacy, reusability of code, and ease of use. The purpose of this ethical examination is to more thoroughly explore these issues within the context of real-world program use.

The first ethical implication we will address is ease of use within the St. Olaf Task Manager Calendar Application. The program was designed for the purpose of scheduling a specific task with a designated time, date, and priority level in as streamlined a fashion as possible. In order for the program to be useable by as large a base of the population as possible, we created a simple graphical environment that allows quick and efficient usage with a low-learning curve. This environment was created in a way which is equally usable across sub-populations of varying age, gender, and ethnicity, and technical savvy. The interface is straightforward and its functionality is limited to as few windows as is practical, allowing users to focus on the task at hand without being lost in layers of menus and flashy program branches.

During the development process, we strove to write code in a way that would leave a body of source code that is easily manageable, comprehensible and reworkable by both ourselves and others who may wish to improve upon our program or use portions of it for their own purposes. These considerations manifested themselves in our compartmentalization of code within classes and functions. This strategy will allow the code to be more easily edited within our own program or incorporated into the body of future projects where the code is used.
Detailed commenting of the code was also included to set off major sections of the code, give information about the purpose of specific functions and classes, and to break down the steps of more complex operations. Where possible, classes and functions were partitioned into separate header files to avoid clutter in the main body of the code and also to facilitate reuse of important classes upon which the program heavily relies.

Data privacy was a particularly important issue that we had to address in our program. The St. Olaf Task Manager Calendar Application stores critical personal information about individual’s lives that they may not desire to share and could be used by others with nefarious intent for harm or exploitation of the original user. In order to deal with this issue, we implemented password protection in our program that prompts the individual user at program startup for a unique password and username that secures their individual schedule against review or modification by parties without access to the relevant personal password information. While this simple protection is adequate against trivial security attacks, it may not be sufficient against more dedicated attempts at penetrating the system, and thus should not be relied upon by those storing particularly sensitive information. An additional concern is the storage of user schedules in external files. These files do not fall under the protection of the program password, and could be found by an informed attacker with knowledge of how the data is stored. In light of this, these files should be placed in directories that are themselves secure or difficult to locate to ensure overall program security.

While this is only a superficial overview of the multitude of ethical concerns that inevitably arise in any complex program development process, the concerns that were addressed here encompass the most pressing problems within our particular design process and are representative of the issues that must be considered and incorporated into that design.