

# Program Specification

**bold = Verbs**

*Cursive = Nouns & Yellow*

Sønderborg's library aims to **launch** a digital platform to manage and **share** its diverse digital media collection. The system should **support** *multiple types of media*, including:

- *E-books* with information about their *title, author, language, number of pages, year of publication and ISBN*. Users can **view**, **download** and **read** them.
- *Movies* with information about their *title, director, genres, release year, language and duration*. *Users* can **watch** and **download** them.
- *Songs* with information about their *title, composer, singer, genre, file type, duration and language*. *Users* can **play** and **download** them.
- *Video-games* with information about their *title, genre, publisher, release year and supported platforms*. *Users* can **download**, **play** and eventually **complete** them.
- *Apps* with information about their *title, version, publisher, supported platforms and file size*. *Users* can **download** and **execute** them
- *Podcasts* with information about their *title, release year, host(s), guest(s), episode number and language*. *Users* can **download** and **listen** to an *episode* and **complete** it.
- *Images* with information about their *title, resolution, file format, file size and date taken*. *Users* can **download** and **display** an *image*

*Users* should be able to **borrow** all *media* items, and only *users* who have **borrowed** an *item* may **rate** it.

*The system* must also **support** two categories of *users*: *Admin*, *Employee* and *Borrower*. For each of these *the system* needs to know the *name*, *age* and *social security number*. As a starting point, *user authentication* is not required. However on startup, *the program* should **ask** the *user* to **identify** their role.

- *Borrower* **interact** with the collection by **listing** *items* by *type*, **selecting** and **previewing** details, **rating** *items*, and **performing** actions specific to the *media* type.
- *Employee* is **responsible** for managing *the collection* with the ability to **add** or **remove** *media* items
- *Admin* has all of an *Employee's rights* and can additionally **manage** *Borrowers* and *Employees*. *Management* covers **viewing**, **creating**, **deleting**, **updating** *the personal information* of *users*.

*The supported* actions should be **made available** to all *user* categories in a clear and structured way.

*The console interface* should guide the *user* with clear instructions and **validate** all inputs. *Errors* or *invalid actions* should **not pass** this filter. *The design* should **anticipate** growth through extensibility, ensuring that new *media* types or *user roles* can be **added** without disrupting existing functionality.