**Project Specification**

**M5 Stack Functionality:**

* User scans card to unlock seat after booking (RFID reader)
* Screen which displays current seat status (FREE, IN USE, BOOKED (with time), AT LUNCH)
* One button to start lunch hour break
* Accelerometer automatically detects vibrations to so that seat status is known in real time – information all sent to and displayed on website

**Website Functionality:**

**Home page:**

* Large logo and website name
* Guest login with Name, Institution (Bristol), Student number
* Sign up/ Login buttons (when clicked widgets appear)

**Map/Overview page:**

* Right 3/4 of screen is map of campus
* Left panel is list of different study spaces (with capacity and colour coded) – when hovered over the study space lights up
* Can click on building or library name to go to library page

**Individual library pages/widgets (decide later):**

* Library home page has building description, Google maps location, overall capacity, library features, building rating, estimated peak times and building analytics (recommend best time to go – can send notifications/emails when spaces free)
* Left panel with list of rooms in building (capacity)
* Click/hover over room, widget/page comes up with room image with seats colour coded, number of seats, room information (computers, booths, etc)
* User then clicks on seat...

**Seat Information Screen:**

* All seats clickable:
* If seat in use, displays booking information schedule, current time spent in use, (username of occupier), Button to book future time slots
* If seat free, same information, can just book for now
* Once booked, booking confirmation comes up “Booked for x hours”

**User login page:**

**User profile section:**

* User statistics – building usage, total library time
* Recent/current bookings, can cancel bookings
* Button to enter in to seat swap pool based system – users can request seat swaps with other users – select library you want to swap to
* Friends section – list of friends, friend finder (shows library and seat)
* Can also start lunch break from this page

**Random ideas:**

* Bookable rooms with m5 stack on door
* Seats vibrate to tell students to take break
* Personalised user data
* Request seat swapping with other users in different libraries