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Project Repo URL : https://github.com/StephenSwantonIRL/PodPal.git

Video : <https://youtu.be/4IARTDBtpVs>

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| Grade Band | Combined Knowledge | Networking Technologies | IoT Solution | Communication |
| Base | I have used the following modules to create a combined solution:   * Knowledge of HTML and CSS to build front end site and use of the Elephant SQL platform to host my database * Knowledge of Database Design and SQL to build a postgresql database to manage the data storage and manipulation * Knowledge of node-express developed from the ICT skills module used to build web application * Knowledge of python, email and physical computing from Computer Systems module. * Knowledge of working with APIs from ICT Skills and Computer Systems Module   Project also involved independent study to learn how the Arduino environment works. Independently explored additional node and python libraries such as node-mailer, pyzbar, psycopg2, JSBarcode and others | Multiple devices used including camera, ultrasonic distance sensor and LCD timer. | See below | Readme and Video |
| Good | Interconnected Pi and Arduino with two way communication between the devices over USB serial connection.  Several protocols used including http, smtp and postgresql | Solves problem faced by Office Managers on a regular basis. Pi and Arduino handle process and interpret sensor data. Node-Express web app provides end users with an easy to manage interface with the physical system. | Presentation |
| Excellent | Postgresql uses a message based protocol.  Push API usage via the Push Alert service API to register and serve web push notifications to admin users  Architecture permits high level device such as webapp and low level device such as pi to communicate events to end user. | Installation guide |
| Outstanding |  | Scalable as Office Managers can add as many devices and users as desired to their account. Requires minimal office manager configuration. None of the existing focus room solutions on the market offer tracking. |  |

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Additional Comments:

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