**COMP6030 – Specifications**

Components

|  |  |
| --- | --- |
| Component | Login Service |
| Description | A service running on the CrownPass Holder App which requests authentication from the cloud and provides an access token to other service after authentication has completed. |
| Type | App Service |
| Required Interfaces | Login |
| Provided Interfaces | Get Access Token |

|  |  |
| --- | --- |
| Component | Visitation Manager |
| Description | A service running on the CrownPass Holder App which allows the user to check in and check out of different Controlled Areas and allows them to receive their visitation history. Requires an access token to be able to do this. |
| Type | App Service |
| Required Interfaces | Check-In, Check-Out, Get Visits, Get Access Token |
| Provided Interfaces |  |

|  |  |
| --- | --- |
| Component | Notification Collector |
| Description | A service running on the CrownPass Holder App which periodically requests notifications from the cloud. Requires an access token to be able to retrieve this kind of data. |
| Type | App Service |
| Required Interfaces | Get Notifications, Get Access Token |
| Provided Interfaces |  |

|  |  |
| --- | --- |
| Component | Booking Service |
| Description | A service running on the CrownPass Holder App which allows the user to be able to receive available booking times for a vaccination center and allows them to book using these time slots. Requires an access token to be able to perform these services. |
| Type | App Service |
| Required Interfaces | Book Vaccination, Get Access Token |
| Provided Interfaces |  |

|  |  |
| --- | --- |
| Component | Print Service |
| Description | A service running on the CrownPass Holder App which gets CrownPass details from the cloud and sends the data to a configured printer. Requires an access token to retrieve this data. |
| Type | App Service |
| Required Interfaces | Get CrownPass, Get Access Token |
| Provided Interfaces |  |

|  |  |
| --- | --- |
| Component | Display Service |
| Description | A service running on the CrownPass Holder App which gets CrownPass details from the cloud and formats and displays the data on the user device. Requires an access token to retrieve this data. |
| Type | App Service |
| Required Interfaces | Get CrownPass, Get Access Token |
| Provided Interfaces |  |

|  |  |
| --- | --- |
| Component | Authentication/Registration Service |
| Description | A service running on the cloud CrownPass System which checks user credentials against the CrownPass object for that user and registers any type of user. Also notifies the user if they have logged in successfully or registered etc. |
| Type | Cloud Microservice |
| Required Interfaces | Add Notifications, Get CrownPass |
| Provided Interfaces | Login |

|  |  |
| --- | --- |
| Component | Visitation Service |
| Description | A service running on the cloud CrownPass System which can record when a user checks in and when they check out of a controlled area and can return a list of the user’s past visits. |
| Type | Cloud Microservice |
| Required Interfaces | Add Notifications, Get CrownPass |
| Provided Interfaces | Check-In, Check-Out, Get Visits |

|  |  |
| --- | --- |
| Component | Notifications Service |
| Description | A service running on the cloud CrownPass System which provides the ability to notify a user. |
| Type | Cloud Microservice |
| Required Interfaces | Get CrownPass |
| Provided Interfaces | Add Notifications, Get Notifications |

|  |  |
| --- | --- |
| Component | Appointments Service |
| Description | A service running on the cloud CrownPass System which allows the user to be able to book a Vaccination appointment and adds notifications for those appointments. |
| Type | Cloud Microservice |
| Required Interfaces | Add Notifications, Get CrownPass |
| Provided Interfaces | Book Vaccination |

|  |  |
| --- | --- |
| Component | CrownPass Management Service |
| Description | A service running on the cloud CrownPass System which allows other services to get the CrownPassHolder object based on the CrownPassID and only allows the user to receive a JSON version of this object over HTTP/S. |
| Type | Cloud Microservice |
| Required Interfaces |  |
| Provided Interfaces | Get CrownPass |

Interfaces

|  |  |
| --- | --- |
| Interface Name | Get Access Token |
| Provider | Login Service (CrownPass App) |
|  | *Operation:* getAccess; |
| *Request Parameters:*  *Response Parameters:* AccessToken: string  *Function:* Allows other services to collect the user’s Access Token after they have logged on successfully so that they can use it to prove that their functions are authorized. |

|  |  |
| --- | --- |
| Interface Name | Login |
| Provider | Authentication/Registration Service (CrownPass API Gateway) |
|  | *Operation:* loginUser; |
| *Request Parameters:* CrownPassID: uint64, UserName: string, Password: string  *Response Parameters:* AccessToken: string  *Function:* Allows the user to log in providing their username and password. Returns a unique access token that the user can use to prove they have successfully authenticated. |
|  | *Operation:* logoutUser; |
| *Request Parameters:* CrownPassID: uint64  *Response Parameters:*  *Function:* Allows the user to log out, their access token will be deleted from the database and will not be allowed to be used for authorization. |

|  |  |
| --- | --- |
| Interface Name | Check-In |
| Provider | Visitation Service (CrownPass API Gateway) |
|  | *Operation:* checkInUser; |
| *Request Parameters:* CrownPassID: uint64, AccessToken: string, Area: ControlledArea, Time: DateTime  *Response Parameters:*  *Function:* Allows other services to check in a user to a controlled area at the provided time and creates a Visit object for the current visit which is stored in the database. |

|  |  |
| --- | --- |
| Interface Name | Check-Out |
| Provider | Visitation Service (CrownPass API Gateway) |
|  | *Operation:* checkOutUser; |
| *Request Parameters:* CrownPassID: uint64, AccessToken: string, Time: DateTime  *Response Parameters:*  *Function:* Allows other services to check out a user from a controlled area. The Visit object created when checking in is updated to include the check out time provided. |

|  |  |
| --- | --- |
| Interface Name | Get Visits |
| Provider | Visitation Service (CrownPass API Gateway) |
|  | *Operation:* getVisitationHistory; |
| *Request Parameters:* CrownPassID: uint64, AccessToken: string  *Response Parameters:* Visits: JSONObject  *Function:* Allows an authenticated user to retrieve a list of their past visits in the form of a JSON object over HTTP/S. |

|  |  |
| --- | --- |
| Interface Name | Get Notifications |
| Provider | Notification Service (CrownPass API Gateway) |
|  | *Operation:* getAllNotifications; |
| *Request Parameters:* CrownPassID: uint64, AccessToken: string  *Response Parameters:* Notifications: JSONObject  *Function:* Allows an authenticated user to retrieve a list of their notifications in the form of a JSON object over HTTP/S. |

|  |  |
| --- | --- |
| Interface Name | Book Vaccination |
| Provider | Appointments Service (CrownPass API Gateway) |
|  | *Operation:* createBooking; |
| *Request Parameters:* CrownPassID: uint64, AccessToken: string, Area: ControlledArea, TimeSlot: DateTime  *Response Parameters:*  *Function:* Allows an authenticated user to book a vaccination choosing a time slot which can be retrieved by using getAvailableTimes. Creates a new Appointments object in the database. |
|  | *Operation:* getAvailableTimes; |
| *Request Parameters:* Area:ControlledArea  *Response Parameters:* Times: JSONObject  *Function:* Allows a user to retrieve a list of available time slots for vaccination appointments in the form of a JSON object over HTTP/S. |

|  |  |
| --- | --- |
| Interface Name | Get CrownPass |
| Provider | CrownPass Management Service (CrownPass API Gateway) |
|  | *Operation:* getCrownPass; (User) |
| *Request Parameters:* CrownPassID: uint64, AccessToken: string  *Response Parameters:* CrownPass: JSONObject  *Function:* Allows an authenticated user to retrieve a copy of their CrownPass details in the form of a JSON object over HTTP/S. |
|  | *Operation:* getCrownPass; (BackEnd) |
| *Request Parameters:* CrownPassID: uint64  *Response Parameters:* CrownPass: CrownPassHolder  *Function:* Allows other services running in the back-end to retrieve a copy of a user’s CrownPass details for the provided CrownPassID in the form of a CrownPassHolder object. |

|  |  |
| --- | --- |
| Interface Name | Add Notifications |
| Provider | Notification Service (CrownPass API Gateway) |
|  | *Operation:* addNotification; |
| *Request Parameters:* CrownPassID: uint64, NotificationData: string  *Response Parameters:*  *Function:* Adds a notification containing the provided notification data to a list of notifications for the provided CrownPassID in the database. |
|  | *Operation:* updateNotification; |
| *RequestParameters:* NotificationID: uint64, NotificationData: string  *ResponseParameters:*  *Function:* Allows other services to update a notification stored in the database with the provided notification data. |
|  | *Operation:* deleteNotification; |
| *Request Parameters:* NotificationID: uint64  *Response Parameters:*  *Function:* Allows other services to delete a notification stored in the database. |