25th Annual Information Technology Competition
Web Application Development Case Study

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Important Dates:

March 21st - distribution of the case studies to the competitors.
April 3rd - deadline for the competitors to complete their deliverables to turn in.
April 10th - the competition day which is the day the competitors present their deliverables to the judges.

On April 3rd, please submit an XML file with the ServiceNow application as well as a single page with a summary, key features, team members, dependencies, release notes, and installation instructions to **cindy.pham@calpolymissa.org**. Please use this as a template for your submission:
https://store.servicenow.com/sn_appstore_store.do#!/store/application/3c902de0a995a410f877d73966e71a8a

Recommended Resources:

- Sign up for a ServiceNow account on https://developer.servicenow.com/dev.do and request a free developer instance running on the latest version (Quebec).
- ServiceNow documentation can be found here: https://docs.servicenow.com/ and you can find help on the community: https://community.servicenow.com/community
- Complete some free ServiceNow training:
  - https://developer.servicenow.com/dev.do#!/learn/courses/quebec
  - ServiceNow fundamentals: https://nowlearning.service-now.com/lxp?id=overview&sys_id=6b78901c1b748050b1c7fe631a4bcb73&type=path
  - Now Experience UI Builder: https://developer.servicenow.com/blog.do?p=/post/quebec-intro-to-ui-builder/
- Install the Safe Workplace suite Professional Application

Background:

Over 75% of Fortune 500 companies and over 50% of Fortune 2000 companies use ServiceNow, an application Platform-as-a-Service (aPaaS). It's used to host applications developed by ServiceNow and their partners as well as custom business applications developed by ServiceNow customers. Many

employees at these companies are currently working remotely and eager to get back into the office. For this project, you'll be using ServiceNow to build a scoped application to help companies get their employees back into the office safely. Your goal is to give employers the ability to use data to make informed decisions to restrict the number of unvaccinated employees that can be in each physical office location.

Requirements:

1. Everything developed in this project, including demo data, should be part of a scoped application which can be exported from your personal instance via an update set or Github and imported into another ServiceNow instance that already has the Safe Workplace Suite Professional Application installed. Your scoped application should be your team name.

2. The purpose of this application is to give Safety Managers the ability to set the percentage of unvaccinated employees that can be in each office location. You can find location demo data in the cmn_location table in your personal instance. A default of 30% should be set for all locations.

3. Create a visually appealing portal using the Now Experience UI Builder with the following features:

   - Only users with the Safety Manager role should be able to see and set the percentage of unvaccinated employees allowed in each office location.
   - All employees should be able to submit information through the portal that details whether or not they are vaccinated against Covid19, or if they prefer not to disclose.
   - All employees should be able to reserve days in their office location.
     - i. Vaccinated employees are never restricted from reserving days.
     - ii. Non-vaccinated employees can't reserve a day if the percentage of reserved users meets or exceeds the percentage set for that location.
   - Safety managers can see a chart detailing the percentage of un-vaccinated employees that have scheduled days in the office for each day, filtered by office location.
   - Employees can only see a chart detailing the percentage of un-vaccinated employees that have scheduled days in the office for each day, for their own office location.
   - Safety managers can cancel reservations for specific days for specific employees, which should send a notification to the employee.
   - All employees should be able to change their own reserved days.
   - All employees should be able to submit information through the portal that details if they test positive for Covid19.
     - i. When this is submitted all future reservations for the next 3 weeks should be cancelled for that employee
     - ii. All other employees that were in the same office location as the employee that tested positive for Covid19 during the previous 3 days should be notified that they may have been exposed to Covid19.

Deliverables:

1. The Application (70 points)

   The application and the demo data should be provided via an XML file or through a Github repo that can be imported into any Quebec ServiceNow instance that already has the Safe Workplace

Suite Professional Application installed. Having a fully functional application that includes the portal with all requirements working as requested will provide you with the full 70 points.

2. Application Overview and Oral Presentation (10 points)
   a. Demo everything you implemented and describe how you did it. There is no need for a PowerPoint. Please use this as a template for your submission: https://store.servicenow.com/sn_appstore_store.do#!/store/application/3c902de0a995a410f877d73966e71a8a. Include a summary, key features, team members, and release notes. Include a link to your Github Repo, if you have one, and include any dependent plugins that need to be installed, including the Safe Workplace suite Professional, if you choose to use it. Include steps to install your app as well as a link to your portal experience. You should also discuss any challenges you came across, detail what you weren't able to complete, and be prepared to answer questions.

3. Team's choice features. Choose two to implement. (20 points MAX)
   a. Demo the requirements listed above in a mobile app created using the Mobile Studio in ServiceNow.
   b. Using Virtual Agent Designer, create a chatbot that can answer questions about returning to the office and direct users to schedule when they want to be in the office.
   c. Integrate with an external source to display Covid19 related data on the portal.
   d. Using the Automated Test Framework develop automated tests for the functionality listed in the Portal requirements above.
   e. Develop Guided Tours of the new portal for users with the Safety Manager Role as well as Employees: https://docs.servicenow.com/bundle/quebec-platform-user-interface/page/build/help-guided-tours/task/activate-guidedtours-service-portal.html