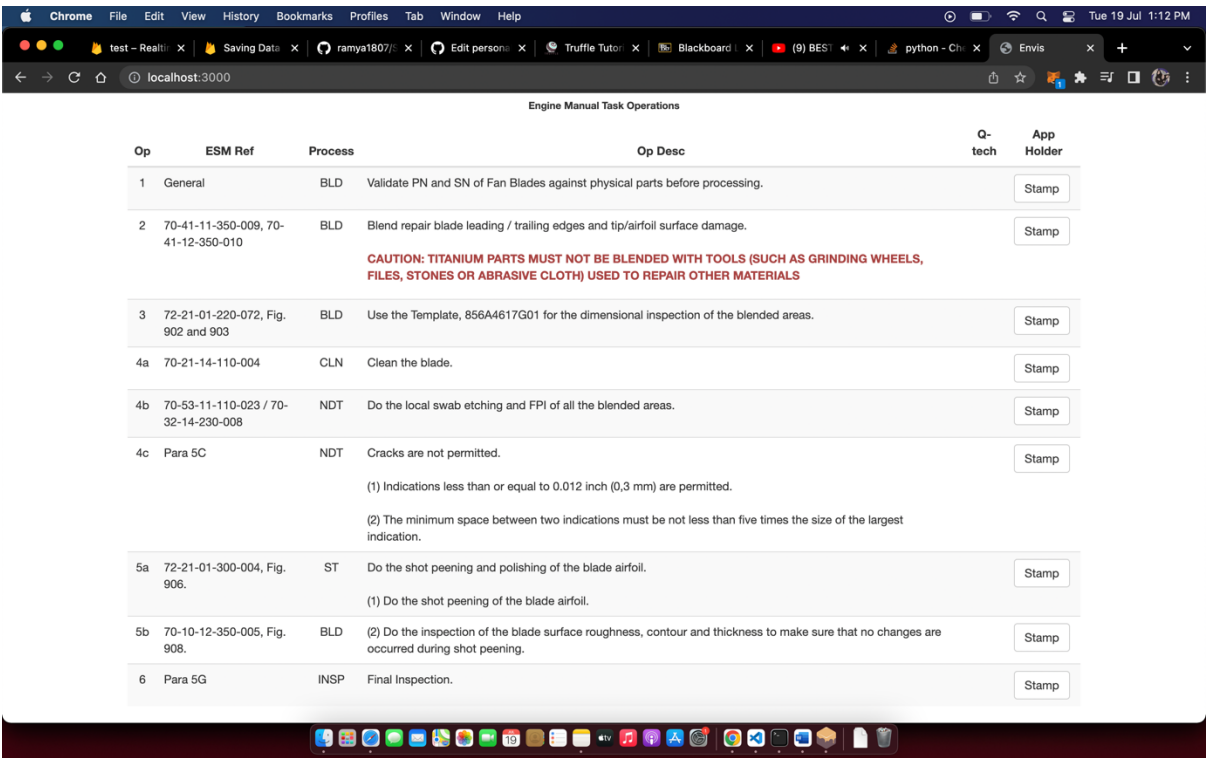


1. To run the file, truffle migrate, npm run dev



2. Implement at the bottom of the web page

3. Box to key in the serial number, 2 buttons to save and Query

123	Save
123	Query

4. On (save) button pressed: the current coordinates (main) will be added to the serial number

```

1 from re import S
2 import firebase_admin
3 from firebase_admin import credentials
4 from firebase_admin import db
5
6 # Fetch the service account key JSON file contents
7 cred = credentials.Certificate('test-6127b-firebase-adminsdk-7vcwg-c79cfceb70.json')
8
9 # Initialize the app with a service account, granting admin privileges
10 firebase_admin.initialize_app(cred, {
11     'databaseURL': 'https://test-6127b-default-rtdb.firebaseio.com/' })
12
13 # As an admin, the app has access to read and write all data, regardless of Security Rules
14 ref = db.reference('/')
15 serial_number = "124"
16 users_ref = ref.child('coordinates')
17 coordinates = users_ref.get()['main']
18
19 def add(coordinates):
20     if serial_number in users_ref.get():
21         serial_coordinate = users_ref.get()[serial_number]
22         serial_coordinate += [coordinates]
23         hopper_ref = users_ref.child(serial_number)
24         hopper_ref.set(serial_coordinate)
25     else:
26         users_ref.update({serial_number: [coordinates]})
27
28 add(coordinates)
29 print(users_ref.get())
30

```

5. On (query) button pressed: the list of coordinates of the serial number will be fetched and displayed on the website

123	Save
123	Query

['X2,Y2,Z3' , 'X2,Y2,Z3']

```

1 import firebase_admin
2 from firebase_admin import credentials
3 from firebase_admin import db
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5 # Fetch the service account key JSON file contents
6 cred = credentials.Certificate('test-6127b-firebase-adminsdk-7vcwg-c79cfceb70.json')
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9 firebase_admin.initialize_app(cred, {
10     'databaseURL': 'https://test-6127b-default-rtdb.firebaseio.com/' })
11
12 # As an admin, the app has access to read and write all data, regardless of Security Rules
13 ref = db.reference('/')
14
15 users_ref = ref.child('coordinates')
16
17
18 def get(serial_number):
19     print(users_ref.child(serial_number).get())
20     return users_ref.child(serial_number).get()
21
22 get("124")
23

```

6. This is how the firebase realtime database looks like

