Deployment of Asp.Net core app on Red Had Linux

Application Configurations

Add the following lines to the `appsettings.json`

```
"Kestrel": {
    "EndPoints": {
      "Http": {
        // must specify the IP or it will only work on local host
        "Url": "http://192.168.1.3:9080"
      }
    }
  }
```

Application publish

- publish the app with target to `Linux x64`
- select `Self contained`

Dependency configurations

Run the following command to install `dotnet`

```
# Install microsoft repo if not found
sudo yum install -y https://packages.microsoft.com/config/rhel/8/packages-
microsoft-prod.rpm
```

```
sudo yum update
# install dotnet runtime
sudo yum install dotnet-runtime-8.0
# verify installation of dotnet runtime
dotnet --info
```

Service file

A Service file is needed to run the app as a service on linux

Name the file as `YourAppName.service` and save it in `/etc/systemd/system/`

```
[Unit]
# Service Description
Description=YourApp Service

[Service]
# path to service on linux
WorkingDirectory=/path/to/publish
# bash command to run app which is path to dotnet then path to main DLL
ExecStart=/usr/bin/dotnet /path/to/publish/YourApp.dll
Restart=always
RestartSec=10
# Name of the app in the logs
SyslogIdentifier=YourApp
# User to used to run the app
# mush be an existing user and has enough permissions for the app folder and dotnet
User=www-data
Environment=ASPNETCORE_ENVIRONMENT=Production

[Install]
WantedBy=multi-user.target
```

Environment configurations

Run the following commands to start the service on linux

```
# must be run after each changes to services on linux
sudo systemctl daemon-reload
sudo systemctl enable yourapp
sudo systemctl start yourapp
sudo systemctl status yourapp
```

Expose the port of the app through firewall https://www.redhat.com/en/blog/firewalld-linux-firewall

```
firewall-cmd --zone=public --add-port=80/tcp --permanent
firewall-cmd --reload
```