Homework 2:

> create a deployment using terraform which contain matchlabels ,match expression and labels

> create replicas

> create a mysql database using terraform

> launch a wordpress site using mysql credential and database

```
provider "kubernetes" {
  config_context_cluster = "minikube"
}
resource "kubernetes_deployment" "mysql" {
 metadata {
   name = "mysql"
 }

 spec {
  replicas = 1

  selector {
   match_labels = {
     env = "production"
     region = "IN"
     app = "webserver"
    }
    match_expressions {
        key     = "env"
        operator = "In"
        values   = ["production", "webserver"]
      }
  }


   template {
    metadata {
     labels = {
       env = "production"
       region = "IN"
       app = "webserver"
      }
```

```
      }


    spec {
     container {
    image = "mysql:5.6"
    name  = "mysql-cont"
    port {
      container_port = 80
    }
    env {
      name = "MYSQL_ROOT_PASSWORD"
      value = "*******t"



    }
     env{
       name = "MYSQL_DATABASES"
      value = "******"
}
env{
       name = "MYSQL_USER"
      value = "******"
}
env{
       name = "MYSQL_PASSWORD"
      value = "******"
}


    }
   }
  }
 }
}
resource "kubernetes_deployment" "wordpress" {
 metadata {
  name = "wordpress"
```

```
}

spec {
  replicas = 1

  selector {
    match_labels = {
      env = "production"
      region = "IN"
      app = "webserver"
    }
    match_expressions {
        key      = "env"
        operator = "In"
        values   = ["production", "webserver"]
      }
  }


  template {
    metadata {
      labels = {
        env = "production"
        region = "IN"
        app = "webserver"
      }
    }


    spec {
     container {
    image = "wordpress:4.8-apache"
    name  = "mywordpress-cont"



      }
     }
   }
```
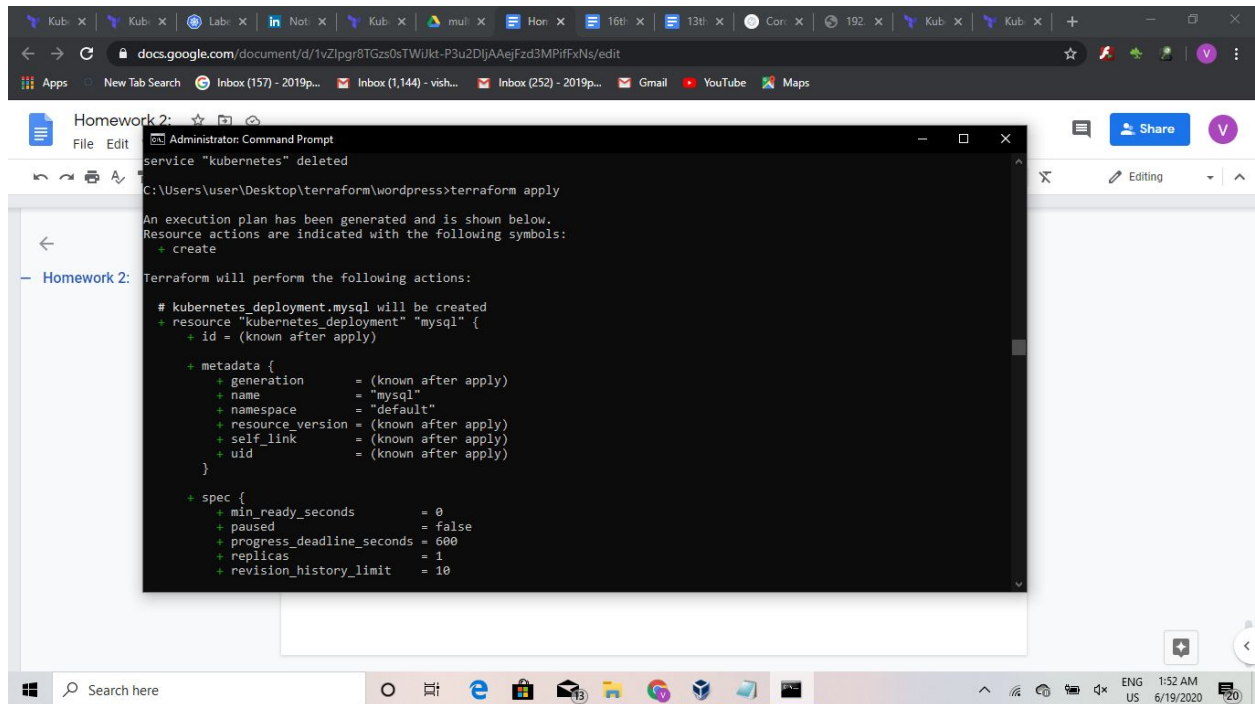
```
}
}
```



```
C:\Users\user\Desktop\terraform\wordpress>kubectl get pods
NAME                       READY   STATUS    RESTARTS   AGE
mysql-5db9b95bc7-kwvmn       1/1    Running    0          62s
wordpress-7f4486fcdf-2v275   1/1    Running    0          62s

C:\Users\user\Desktop\terraform\wordpress>kubectl expose pod
mysql-5db9b95bc7-kwvmn --type=NodePort --port 80
service/mysql-5db9b95bc7-kwvmn exposed

C:\Users\user\Desktop\terraform\wordpress>kubectl expose pod
wordpress-7f4486fcdf-2v275 --type=NodePort --port 80
service/wordpress-7f4486fcdf-2v275 exposed

C:\Users\user\Desktop\terraform\wordpress>kubectl get all
NAME                       READY   STATUS    RESTARTS   AGE
pod/mysql-5db9b95bc7-kwvmn       1/1    Running    0          105s
pod/wordpress-7f4486fcdf-2v275   1/1    Running    0          105s

NAME                       TYPE      CLUSTER-IP     EXTERNAL-IP  PORT(S)
AGE
```

```
service/kubernetes              ClusterIP   10.96.0.1      <none>       443/TCP        109s
service/mysql                   NodePort    10.97.89.144   <none>       80:31737/TCP
107s
service/mysql-5db9b95bc7-kwvmn  NodePort    10.97.110.127  <none>
80:31798/TCP   14s
service/wordpress               NodePort    10.106.48.45   <none>       80:30660/TCP
107s
service/wordpress-7f4486fcdf-2v275  NodePort  10.103.85.109  <none>
80:31738/TCP   5s

NAME                        READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/mysql       1/1     1            1           105s
deployment.apps/wordpress   1/1     1            1           105s

NAME                              DESIRED   CURRENT   READY   AGE
replicaset.apps/mysql-5db9b95bc7      1         1         1       105s
replicaset.apps/wordpress-7f4486fcdf  1         1         1       105s
```