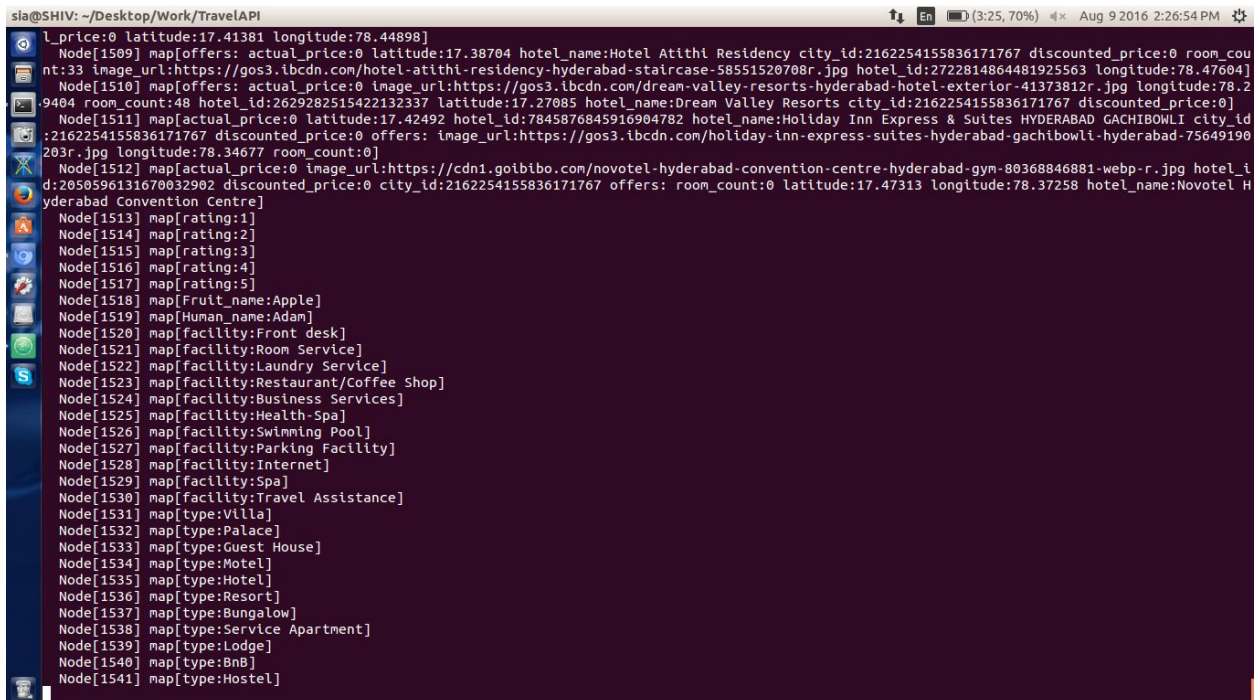


There are queries given below and their responses too

### 1) queryAllNodes()

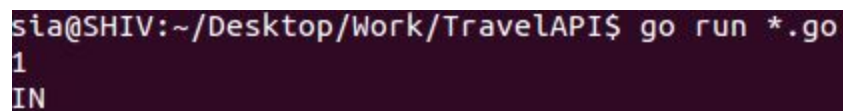
```
func queryAllNodes() {  
    // query results  
    res := []struct {  
        N neoism.Node  
    }{}  
  
    // construct query  
    cq := neoism.CypherQuery{  
        Statement: "MATCH (n) RETURN n",  
        Result: &res,  
    }  
    // execute query  
    err := db.Cypher(&cq)  
    panicErr(err)  
    fmt.Printf("queryAllNodes(%d)\n", len(res))  
    for i, _ := range res {  
        n := res[i].N  
        fmt.Printf(" Node[%d] %+v\n", i, n.Data)  
    }  
}
```



```
sia@SHIV: ~/Desktop/Work/TravelAPI  
L_price:0 latitude:17.41381 longitude:78.44898]  
Node[1509] map[offers: actual_price:0 latitude:17.38704 hotel_name:Hotel Atithi Residency city_id:2162254155836171767 discounted_price:0 room_cou  
nt:33 image_url:https://gos3.ibcdn.com/hotel-atithi-residency-hyderabad-staircase-58551520708r.jpg hotel_id:2722814864481925563 longitude:78.47604]  
Node[1510] map[offers: actual_price:0 image_url:https://gos3.ibcdn.com/dream-valley-resorts-hyderabad-hotel-exterior-41373812r.jpg longitude:78.2  
9404 room_count:48 hotel_id:2629282515422132337 latitude:17.27085 hotel_name:Dream Valley Resorts city_id:2162254155836171767 discounted_price:0]  
Node[1511] map[actual_price:0 latitude:17.42492 hotel_id:7845876845916904782 hotel_name:Holiday Inn Express & Suites HYDERABAD GACHIBOWLI city_id  
:2162254155836171767 discounted_price:0 offers: image_url:https://gos3.ibcdn.com/holiday-inn-express-suites-hyderabad-gachibowli-hyderabad-75649190  
203r.jpg longitude:78.34677 room_count:0]  
Node[1512] map[actual_price:0 image_url:https://cdn1.goibibo.com/novotel-hyderabad-convention-centre-hyderabad-gym-80368846881-webp-r.jpg hotel_i  
d:2050596131670032902 discounted_price:0 city_id:2162254155836171767 offers: room_count:0 latitude:17.47313 longitude:78.37258 hotel_name:Novotel H  
yderabad Convention Centre]  
Node[1513] map[rating:1]  
Node[1514] map[rating:2]  
Node[1515] map[rating:3]  
Node[1516] map[rating:4]  
Node[1517] map[rating:5]  
Node[1518] map[Fruit_name:Apple]  
Node[1519] map[Human_name:Adam]  
Node[1520] map[facility:Front desk]  
Node[1521] map[facility:Room Service]  
Node[1522] map[facility:Laundry Service]  
Node[1523] map[facility:Restaurant/Coffee Shop]  
Node[1524] map[facility:Business Services]  
Node[1525] map[facility:Health-Spa]  
Node[1526] map[facility:Swimming Pool]  
Node[1527] map[facility:Parking Facility]  
Node[1528] map[facility:Internet]  
Node[1529] map[facility:Spa]  
Node[1530] map[facility:Travel Assistance]  
Node[1531] map[type:Villa]  
Node[1532] map[type:Palace]  
Node[1533] map[type:Guest House]  
Node[1534] map[type:Motel]  
Node[1535] map[type:Hotel]  
Node[1536] map[type:Resort]  
Node[1537] map[type:Bungalow]  
Node[1538] map[type:Service Apartment]  
Node[1539] map[type:Lodge]  
Node[1540] map[type:BnB]  
Node[1541] map[type:Hostel]
```

## 2) SearchCountryNode()

```
func SearchCountryNode(country string) {  
  
    dbn, _ := neoism.Connect("http://neo4j:12345@localhost:7474")  
  
    res1 := []struct {  
        A string `json:"c.cid"`  
    }{}  
  
    cq1 := neoism.CypherQuery{  
        Statement: `  
            MATCH (c:Country {CountryName: {CountryName}})  
            RETURN c.cid  
        `,  
        Parameters: neoism.Props{"CountryName": country},  
        Result:      &res1,  
    }  
  
    dbn.Cypher(&cq1)  
    fmt.Println(len(res1))  
    fmt.Println(res1[0].A)  
}
```



A terminal window with a dark background. The prompt is 'sia@SHIV:~/Desktop/Work/TravelAPI\$'. The command 'go run \*.go' has been entered. The output shows '1' on the first line and 'IN' on the second line.

```
sia@SHIV:~/Desktop/Work/TravelAPI$ go run *.go  
1  
IN
```

### 3) top\_five\_by\_rating(rating string)

```
func top_five_by_rating(rating string){  
  
    dbn, _ := neoism.Connect("http://neo4j:12345@localhost:7474")  
  
    res := []struct {  
        HotelIN string `json:"h.hotel_name"`  
    }{}  
  
    stmt := `MATCH (h:HotelInfo)-[:has_rating]->(r:Rating) WHERE r.rating="" +rating+`  
    RETURN h.hotel_name ORDER BY h.discounted_price DESC LIMIT 5`  
    cq := neoism.CypherQuery{  
        Statement: stmt,  
        Result:    &res,  
    }  
  
    dbn.Cypher(&cq)  
    for i:=0 ; i<len(res);i++){  
        fmt.Printf(res[i].HotelIN+"\n")  
    }  
}
```

```
sia@SHIV:~/Desktop/Work/TravelAPI$ go run *.go  
Haritha Hotel Kesaragutta(TSTDC)  
Jaithri Service Apartment 2  
Haritha Hotel Yadagirigutta(TSTDC)  
Vista Homes 2 -Banjara Hills  
Hotel Rest Inn
```

#### 4) top\_five\_by\_price()

```
func top_five_by_price(){
    dbn, _ := neoism.Connect("http://neo4j:12345@localhost:7474")

    res := []struct {
        HotelN string `json:"h.hotel_name"`
        HotelP string `json:"h.discounted_price"`
    }{}

    cq := neoism.CypherQuery{
        Statement: `MATCH (h:HotelInfo) RETURN
h.discounted_price,h.hotel_name
ORDER BY h.discounted_price DESC
LIMIT 5`,
        Result: &res,
    }

    dbn.Cypher(&cq)
    for i:=0 ; i<len(res);i++){
        fmt.Printf(res[i].HotelN + "          "+res[i].HotelP+"\n")
    }
}
```

```
Taj Krishna (A Taj Hotel)          7225
Trident Hyderabad          7000
Vivanta by Taj - Begumpet (A Taj Hotel)          5525
Taj Deccan (A Taj Hotel)          5525
Taj Banjara (A Taj Hotel)          5100
```

## 5) hotel\_has\_amenities("Internet")

```
func hotel_has_amenities(amenity string) {  
  
    dbn, _ := neoism.Connect("http://neo4j:12345@localhost:7474")  
  
    res := []struct {  
        Prince string `json:"h.hotel_name"`  
    }{}  
  
    stmt := `MATCH (h:HotelInfo)-[:has_amenities]->(ft:facilities) WHERE  
ft.facility="" +amenity+"` RETURN h.hotel_name`  
    cq := neoism.CypherQuery{  
        Statement: stmt,  
        Result:    &res,  
    }  
  
    dbn.Cypher(&cq)  
    fmt.Println(len(res))  
    fmt.Println(res)  
}
```

```
Taj Krishna (A Taj Hotel)          7225  
Trident Hyderabad                  7000  
Vivanta by Taj - Begumpet (A Taj Hotel) 5525  
Taj Deccan (A Taj Hotel)           5525  
Taj Banjara (A Taj Hotel)          5100
```

6) NearestHotel("17.422","78.33","2162254155836171767")

```
func NearestHotel(lat string, long string, cityid string) {

    la, _ := strconv.ParseFloat(lat, 64)
    lo, _ := strconv.ParseFloat(long, 64)

    Res := []struct {
        Latitude string `json:"ft.latitude"`
        Longitude string `json:"ft.longitude"`
        Hotelname string `json:"ft.hotel_name"`
    }{}

    cq := neoism.CypherQuery{
        Statement: `MATCH (h:CityInfo)-[:has_hotels]->(ft:HotelInfo)
                WHERE h.city_id="" + cityid + ""
                RETURN ft.latitude,ft.longitude,ft.hotel_name ORDER
BY ft.room_count `,
        Result: &Res,
    }

    err1 := db.Cypher(&cq)
    panicErr(err1)
    nearest := 100000.00
    ans := "garbage"
    for i := range Res {
        lah, _ := strconv.ParseFloat(Res[i].Latitude, 64)
        loh, _ := strconv.ParseFloat(Res[i].Longitude, 64)
        dis := ((la-lah)*(la-lah) + (lo-loh)*(lo-loh))
        if dis <= nearest {
            nearest = dis
            ans = Res[i].Hotelname
        }
    }
    fmt.Println("Nearest Hotel-->")
    fmt.Println(ans)
}
```

```
Nearest Hotel-->
Lemon Tree Hotel Gachibowli
```

## 7) top\_five\_by\_price\_rating()

```
func top_five_by_price_rating(){
    dbn, _ := neoism.Connect("http://neo4j:12345@localhost:7474")

    res := []struct {
        HotelIN string `json:"h.hotel_name"`
    }{}

    cq := neoism.CypherQuery{
        Statement: `MATCH (h:HotelInfo)-[rt:has_rating]->(r:Rating) WHERE
r.rating = "5" RETURN h.hotel_name ORDER BY(h.discounted_price) DESC LIMIT 5`,
        Result:    &res,
    }

    dbn.Cypher(&cq)
    for i:=0 ; i<len(res);i++){
        fmt.Println(res[i].HotelIN)
    }
}
```

```
Taj Krishna (A Taj Hotel)
Trident Hyderabad
Taj Deccan (A Taj Hotel)
Vivanta by Taj - Begumpet (A Taj Hotel)
Taj Banjara (A Taj Hotel)
```

## 8) top\_five\_by\_offer()

```
func top_five_by_offer(){  
  
    dbn, _ := neoism.Connect("http://neo4j:12345@localhost:7474")  
  
    res := []struct {  
        HotelIN string `json:"h.hotel_name"`  
        HotelIP string `json:"h.offer"`  
    }{}  
  
    cq := neoism.CypherQuery{  
        Statement: `MATCH (h:HotelInfo) RETURN h.hotel_name,h.offer  
ORDER BY(h.offer) DESC LIMIT 5`,  
        Result:    &res,  
    }  
  
    dbn.Cypher(&cq)  
    for i:=0 ; i<len(res);i++){  
        fmt.Printf(res[i].HotelIN + "                "+res[i].HotelIP+"\n")  
    }  
}
```

```
The Park, Hyderabad  
The Manohar  
Hotel Sandhya  
Mrugavani Resort and Spa  
Radisson Blu Plaza Hotel
```



## 8) NearestCity("17.422","78.33")

```
func NearestCity(lat string, long string){

    la, _ := strconv.ParseFloat(lat, 64)
    lo, _ := strconv.ParseFloat(long, 64)

    Res := []struct {
        Cityname string `json:"c.city_name"`
        Latitude string `json:"l.la"`
        Longitude string `json:"l.lon"`
    }{}

    cq := neoism.CypherQuery{
        Statement: `MATCH (c:CityInfo)-[:city_lat_long]->(l:LATLONG) RETURN
c.city_name,l.la,l.lon`,
        Result: &Res,
    }

    err1 := db.Cypher(&cq)
    panicErr(err1)
    nearest := 100000.00
    ans := "abc"

    for i := range Res {
        lah, _ := strconv.ParseFloat(Res[i].Latitude, 64)
        loh, _ := strconv.ParseFloat(Res[i].Longitude, 64)
        dis := ((la-lah)*(la-lah) + (lo-loh)*(lo-loh))
        if dis <= nearest {
            nearest = dis
            ans = Res[i].Cityname
        }
    }

    fmt.Println("Nearest City-->")
    fmt.Println(ans)
    //return ans
}
```

```
Nearest City-->
Hyderabad
```

