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Module Name: Advance Database System Development

Group: C4

## **Normalization of Figure 2**

### Assumption

The following are the assumptions for the normalization of figure 2:

- Every Tour Package will have its own package id.
- Every package has number days to travel. So the day and package id are depending to each other.
- In every package it will have many activities which is identified by activities id. So the activity id is depending on package id and day.
- Travel Mode depends on activities.

#### **UNF**

**Tracking-Record** (package-id, package-name, start-date, end-date, tour-guide {day, travel-details {activities-id, activities, travel-mode}, status, difficulty-mode})

#### 1NF

- Removing Repeating Groups

Tracking-Record1(package-id, package-name, start-date, end-date, tour-guide)

**PackageDays1**(package-id, day, travel-details, status, difficulty-mode)

PackageActivity1(package-id, day, activity-id, activities, travel-mode)

- Removing Partial Dependency

```
package-id ->
package-id, day -> travel-details, status, difficulty-mode
package-id, day, activity-id -> activities, travel-mode
```

Tracking-Record2(package-id, package-name, start-date, end-date, tour-guide)

PackageDays2(package-id, day, travel-details, status, difficulty-mode)

PackageActivity2(package-id, day, activity-id, activities, travel-mode)

3NF

- Removing Transitive Dependency

**Activities ->** travel-mode

**Tracking-Record3**(package-id, package-name, start-date, end-date, tour-guide)

PackageDays3(package-id, day, travel-details, status, difficulty-mode)

PackageActivity3(package-id, day, activity-id)

**Activity3**(activities, travel-mode)

# **ERD** of Figure 1 and Figure 2

