```
                        «abstract»
                           User
        ┌──────────────────────────────────────┐
        │ # username: String                   │
        │ # email: String                      │
        ├──────────────────────────────────────┤
        │ + User(username: String, email: String)│
        │ + getUsername(): String              │
        │ + getEmail(): String                 │
        │ + setEmail(email: String): void      │
        └──────────────────────────────────────┘
                   △                 △
                  /                   \
                 /                     \
      Owner                              Reviewer
┌──────────────────────────────────┐  ┌──────────────────────────────────┐
│ - restaurants: Map<String, Restaurant>│ │ + Reviewer(username: String, email: String│
├──────────────────────────────────┤  │ + writeReview(restaurant: Restaurant,│
│ + Owner(username: String, email: String)│ │             thumbsUp: boolean,   │
│ + addRestaurant(rest: Restaurant): void│ │             comments: String): void│
│ + owns(restaurantName: String): boolean│ └──────────────────────────────────┘
│ + respondToReview(reviewID: int, │
│              String: restName,   │
│              String: response): void│
│ + getRestaurant(name: String): Restaurant│
└──────────────────────────────────┘
```

```
                Review
┌────────────────────────────────────┐
│ - thumbsUp: boolean                │
│ - reviewer: Reviewer               │
│ - comments: String                 │
│ - response: String                 │
│ - reviewID: int                    │
│ - numReviews: int                  │
├────────────────────────────────────┤
│ + Review(reviewer: Reviewer,       │
│          thumbsUp: boolean,        │
│          comments: String)         │
│ + getThumbsUp(): boolean           │
│ + getReviewer(): Reviewer          │
│ + getComments(): String            │
│ + getResponse(): String            │
│ + getReviewID(): int               │
│ + setResponse(response: String): void│
└────────────────────────────────────┘
```

```
                    Restaurant
┌────────────────────────────────────────┐
│ # name: String                         │
│ # neighbourhood: String                │
│ # priceRange: String                   │
│ # cuisines: List<String>               │
│ # reviews: Map<Integer, Review>        │
├────────────────────────────────────────┤
│ + Restaurant(name: String,             │
│              hood: String,             │
│              price: String,            │
│              cuisines: List<String>)   │
│ + addReview(review: Review): void      │
│ + getName(): String                    │
│ + getNeighbourhood(): String           │
│ + getPriceRange(): String              │
│ + getCuisines(): List<String>          │
│ + getReviews(): Map<Integer, Review>   │
│ + getReview(reviewID: int): Review     │
│ + percentageThumbsUp(): double         │
│ + addCuisine(cuisine: String): void    │
│ + removeCuisine(cuisine: String): void │
└────────────────────────────────────────┘
```

```
                «interface»
                  Takeout
┌────────────────────────────────────┐
│ + getAvgWaitTime(): int            │
└────────────────────────────────────┘
```

```
         LicensedRestaurant                        TakeoutRestaurant
┌────────────────────────────────────┐  ┌────────────────────────────────────┐
│ - expiryDate: java.util.Date       │  │ - avgWaitTime: int                 │
├────────────────────────────────────┤  ├────────────────────────────────────┤
│ + LicensedRestaurant(name: String, │  │ + TakeoutRestaurant(name: String,  │
│              hood: String,         │  │              hood: String,         │
│              price: String,        │  │              price: String,        │
│              List<String> cuisines │  │              cuisines: List<String>,│
│              date: java.util.Date) │  │              avgWait: int)         │
│ + getExpiryDate(): java.util.Date  │  │ + getAvgWaitTime(): int            │
│ + setExpiryDate(date: java.util.Date): void│ └────────────────────────────────────┘
└────────────────────────────────────┘
```