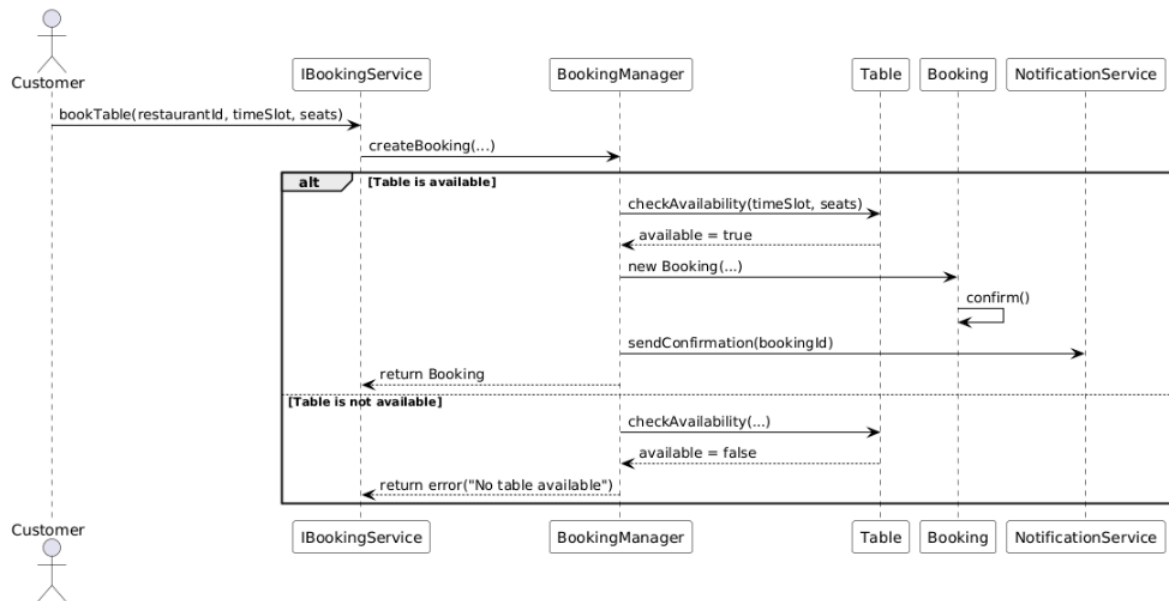## Resit Behavior Model – Booking Service

The UML sequence diagram displays the internal behaviour of the Booking Service when processing a booking request. It is also consistent with the structural model in Task 5(a) that was the booking service and includes interactions between IBookingService, BookingManager, Table, Booking, and NotificationService.

When the customer initiates a bookTable request, the service validates the request and checks for available tables through the Table object. An alternative fragment (alt) is used to show two scenarios: if a table is available, a new Booking object is created, confirmed, and a confirmation is sent via the NotificationService; otherwise, an error is returned to the user. The message arguments, return values, and conditions are clearly specified, and the diagram demonstrates a complete internal behaviour flow for both success and failure cases, using appropriate UML semantics and syntax.