

Inn or Out Yield Management Simulator

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INN OR OUT

An SMU Yield Management Simulator



This is a required field.

Host Game

Join Game

The development of this application was funded through SMU's Technology Enhanced Learning Fund, organised and support by the Centre for Teaching Excellence.

Faculty Lead
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Developer
Rustbucket Interactive



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Content

- Introduction
- A SMU Yield Management Simulator
- Learning points

Motivation

- “The most expensive room is an empty room”
- Preference of various customer segments and demand seasonality contributes to the challenges of the management of hotel rooms
- The Inn or Out Yield Management Simulator is an in-class simulation where students take on the role of a hotel manager in charge of room bookings and check-in



Game flow

- Throughout the game, students will be prompted with guests with various profiles and the amount they will be willing to pay
- Students will then have to decide whether to accept or reject the booking
- At the end of the game, students will be rewarded for efficiently utilizing the allocated room. There will be penalties for overbooking and empty rooms

Start the game

INN OR OUT
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ID

Room Key

This is a required field.

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SMU
SINGAPORE MANAGEMENT
UNIVERSITY
Centre for
Teaching Excellence

RUSTBUCKET
INTERACTIVE

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Customizing the game (instructor)

Lobby

Mouseover the fields to show details of the setting.

Available Rooms

Empty Room Penalty

Overbooking
(Per Overbooked Customer) Penalty

1 -	5		200
6	- 9		500
10	- 15		800
16	and above		1000

Example: If the 10-15 penalty is \$800 and there are 14 overbooked customers, the overbooking penalty would be 14 x \$800 = \$11200.

Manage Potential Bookings

[Edit Character Bank](#)

- Sales Representatives
- Business Professors
- Reliable MBAs
- Family Members
- Convention Organizers
- Convention Participants
- Sportswriters
- High School Basketball Team
- High School Band Members
- Government Officials
- Marketing Managers
- Golfers
- Nurses for Convention

Tooltips Enabled

Host Mode
Play

<u>Booking Customer Count</u>	<u>Phase Timer (sec)</u>
Phase 1 <input style="width: 50px;" type="text" value="16"/>	Phase 1 <input style="width: 50px;" type="text" value="30"/>
Phase 2 <input style="width: 50px;" type="text" value="9"/>	Phase 2 <input style="width: 50px;" type="text" value="15"/>

Customizing the character bank (instructor)

Character Bank

Character Bank Editor

Select an entry in bank to update or delete. Otherwise, click "New" To create a new character group with the data in the fields

Manage Potential Bookings

- Sales Representatives
- Business Professionals
- Reliable MBAs
- Family Members
- Conventioners
- Climate Conventioners
- Sportswriters
- High School Basketball Team
- High School Band Members
- Government Officials
- Marketing Managers
- Golfers
- Nurses for Convention
- Republican Congressmen
- Vacationers
- Medical Patients
- Businesspeople
- CEOs
- IBM Executives
- Last-minute Business Clients
- Another hotel's over-50 clients

Back To Lobby

Character Group Name

Group Size


Group Revenue Per Person

Group Description

Individual No Show Chance %

Group No Show Chance %

Group Character Art:




Phase

Phase 1

Phase 2

New
Update
Remove

To modify or delete an existing character, click on the character in the left panel.
After modifying the character, click Update. To Remove a character, click on the Remove button.



SMU

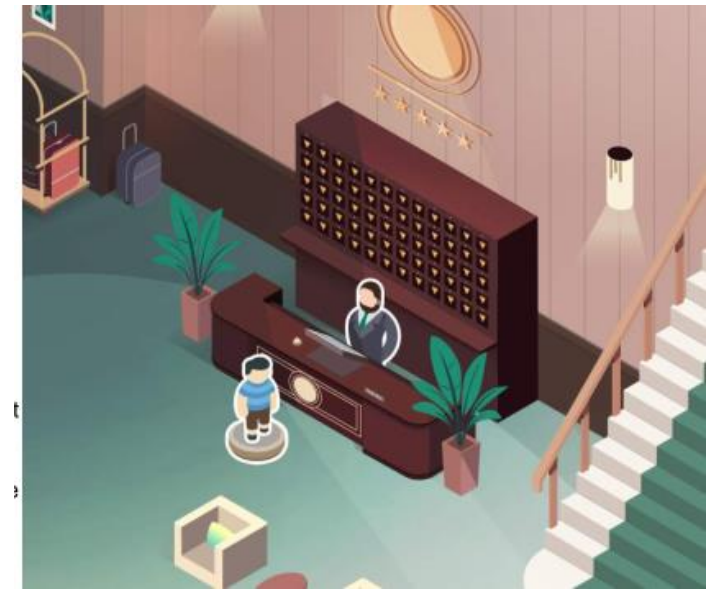
SINGAPORE MANAGEMENT UNIVERSITY

Inn or Out

9

Game play

- There are two phases of customer arrivals
- Phase 1 (about 60 days before the hotel stay)
 - Customers are usually leisure travelers who book their stay well in advance
- Phase 2 (last-minute bookings)
 - Customers are usually business travelers who are more time sensitive but do not mind paying more for the hotel stay



Game interface (student)

The screenshot displays a game interface for a student role. At the top, there are two panels: 'ROOMS AVAILABLE' showing '280/300' and 'BOOKING PHASE 1' with a progress indicator. A central yellow 'BOOKING' card contains the following information:

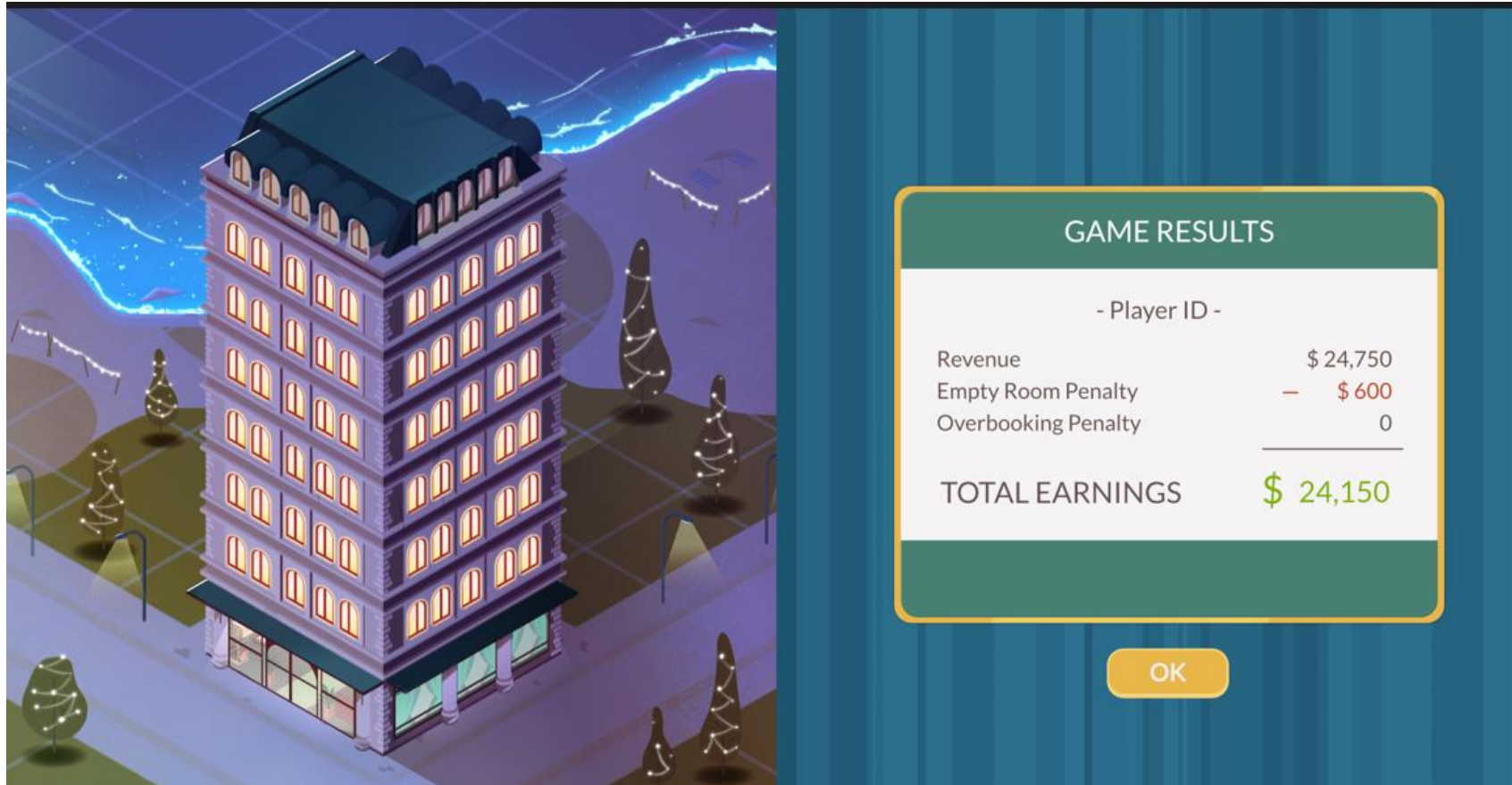
- Number of guests requesting for rooms:** 45 (indicated by a person icon)
- Amount each guest will pay:** \$ 375 /pax
- Details of the guests:** VACATIONERS. Singapore is a popular location for vacationers.

At the bottom of the interface are three circular buttons: a green checkmark for 'Accept the booking', a yellow 'CONFIRM' button, and a red 'X' for 'Reject the booking'. A vertical 'HISTORY' button is located on the right side of the interface.

Annotations with red arrows point to various elements:

- Number of available rooms:** Points to the 'ROOMS AVAILABLE 280/300' header.
- View overbooking penalties:** Points to an information icon in the top right.
- View a history of previously accepted guests:** Points to the 'HISTORY' button.
- Number of guests requesting for rooms:** Points to the '45' guest count.
- Amount each guest will pay:** Points to the '\$ 375 /pax' price.
- Details of the guests:** Points to the 'VACATIONERS' section.
- Accept the booking:** Points to the green checkmark button.
- Reject the booking:** Points to the red 'X' button.

Check-in Phase/Game results



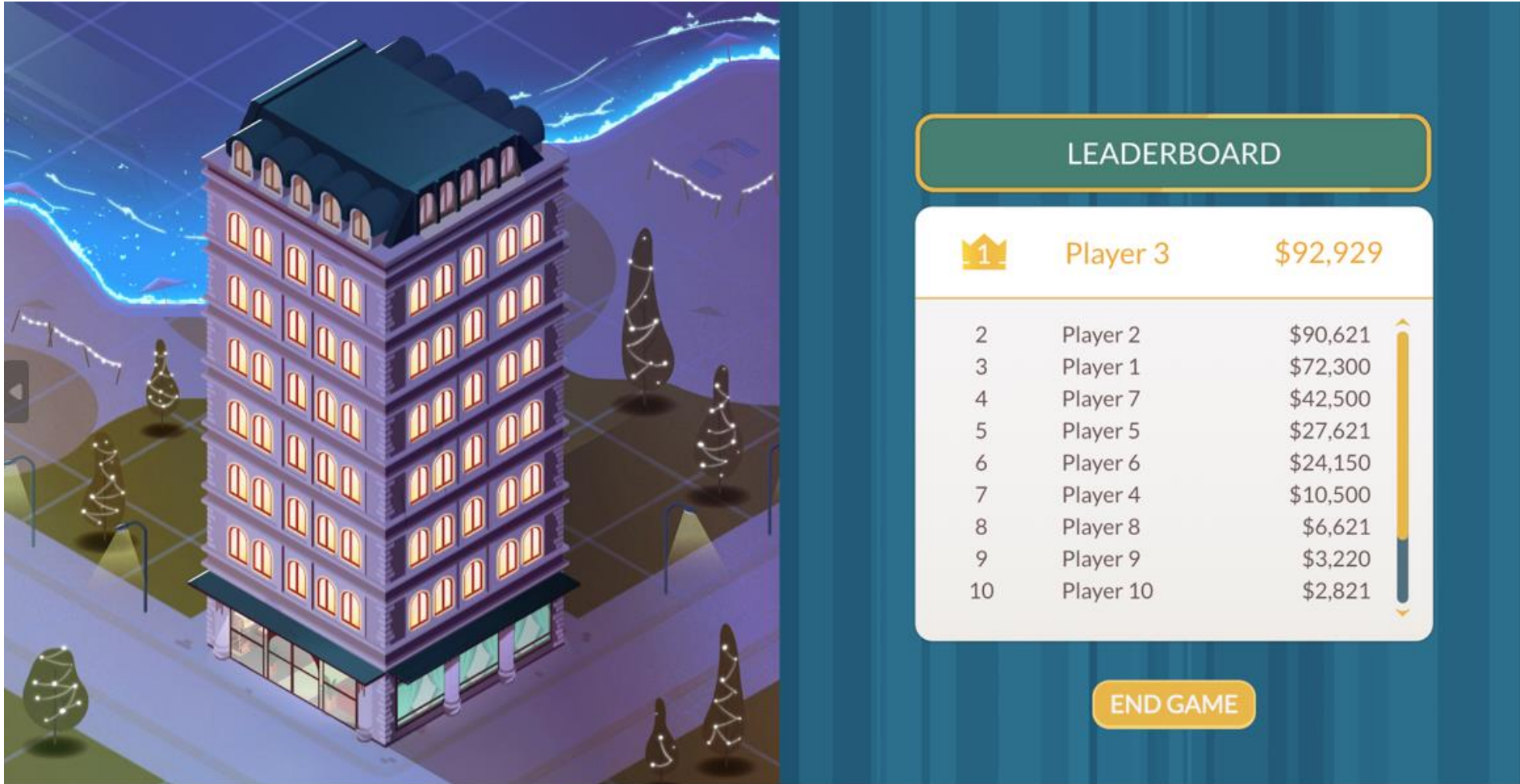
GAME RESULTS

- Player ID -

Revenue	\$ 24,750
Empty Room Penalty	- \$ 600
Overbooking Penalty	0
TOTAL EARNINGS	\$ 24,150

OK

Leaderboard



LEADERBOARD

1	Player 3	\$92,929
2	Player 2	\$90,621
3	Player 1	\$72,300
4	Player 7	\$42,500
5	Player 5	\$27,621
6	Player 6	\$24,150
7	Player 4	\$10,500
8	Player 8	\$6,621
9	Player 9	\$3,220
10	Player 10	\$2,821

END GAME

Theory behind the game



Learning points for students

- “How many rooms should I reserve for Phase 2?”
- Impact of different customer segments
- Finding the balance between Phase 1 and Phase 2

