**Project 1 Reflection Summary**

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* How to use the Universal Studios Day Planner 1.0:
  + After running **DayPlanUniversalStudiosHCao.py** using command line, there will be a short welcome message and ask user to start to use.
  + Then, the program will ask users to enter the plan name.
  + The park admission ticket is a must cost. This program then asks if the user wants to buy an express pass that will shorten some rides time.
  + The user will be informed on the remaining budget after the park ticket purchase and/or express pass purchase. Then the program will ask the users to select the activities for the day trip. The activities include rides, shows, food, and shopping. The lists of the four categories will be printed for user to choose. For each activity, there is a corresponding number for user to use for the selection.
  + To select the activities, the user will use four commands: Enter 's' to select, enter 'd' to delete, enter 'p' to check and print your selection list, enter 'q' to quit. After user enter one of “s, d, p, q” processes, the user can either choose the activity by entering the corresponding number in the lists or quit.
  + After selection, the user will use ‘p’ command to check the selected lists and checking the time and budget on the limits. The max time is 720 m (12hr) and the max budget is $350. The program will print the remaining budget. If the budget is below 0, it is out of limit. If the time or budget exceeds the limits. The user will use ‘d’ to delete some activities from the selection list.
  + Finally, the program will end by selecting all the activities within the time and budget.
  + Exceptions and controls are used to catch unexpected user input and/or undesired computed output.
* Program run example:

python DayPlanUniversalStudiosHCao.py

Welcome to Universal Studios Day Planner 1.0! Let's get started!

Please enter your plan name: A

The park is open for 12 hours each day, and your budget for the day is $350.

You need to buy a park admission ticket: cost is $120.00

Now decide if you want to buy a $80.00 express pass, Yes -- Enter 1, No -- Enter 2: 1

Now your remaining budget is $ 150.0

Now select your activities.

Here are the rides, shows, food, and shopping activities you can select:

Rides:

Name Description Time Price To select Enter

Men in Black Motion Simulation laser gun 40.0 $0.00 1

Simpsons Ride Virtual reality roller coaster ride 30.0 $0.00 2

Revenge of the Mummy Thrill scary coaster 40.0 $0.00 3

Woody Woodpecker Kid-friendly coaster 20.0 $0.00 4

Shrek 4-D Kid Friendly 4D Experience 30.0 $0.00 5

E.T. Adventure Kid Friendly gentle ride 20.0 $0.00 6

Kang and Kodos Kid Friendly Twirl 'n' Hurl 20.0 $0.00 7

Fast & Furious Motion Simulation new ride 40.0 $0.00 8

Despicable Me Minion Motion Simulation 3-D ride 40.0 $0.00 9

Race Through New York Motion Simulation tonigh show ride 40.0 $0.00 10

Harry Potter Gringotts Multi-dimensional thrill ride 50.0 $0.00 11

TRANSFORMERS Motion Simulation 3-D ride 40.0 $0.00 12

Hollywood Rip Ride Scary towering coaster 40.0 $0.00 13

Shows:

Name Description Time Price To select Enter

A Day in the Park with Barney A sing-along musical show 90.0 $0.00 14

Horror Make-Up Show Make-up & special effects 60.0 $0.00 15

FEAR FACTOR LIVE Audience participation show 60.0 $0.00 16

Animal Actors On Location Talented animal actors 40.0 $0.00 17

The Blues Brothers Show Jazz Music 60.0 $0.00 18

Beedle the Bard Retell Beedle the Bard 40.0 $0.00 19

Celestina Warbeck and the Banshees Singing sensation of the wizarding world60.0 $0.00 20

Parade Mardi Gras 60.0 $0.00 21

Ollivanders Wizard Wand 60.0 $0.00 22

Blue Man Group comedy, rock concert and dance party 90.0 $30.00 23

Food:

Name Description Time Price To select Enter

Leaky Cauldron traditional British fare 60.0 $25.00 24

Bumblebee Man's Taco Truck Mexican street food 20.0 $8.00 25

Duff Brewery open-air bar 60.0 $20.00 26

The Fountain of Fair Fortune beers and other beverages 40.0 $20.00 27

Richter's Burger Co sandwich and burgers 40.0 $15.00 28

Lard Lad Donuts sweet treats 15.0 $5.00 29

Finnegan's Bar & Grill traditional Irish-American pub 80.0 $30.00 30

Eternelle's Elixir of Refreshment small beverage kiosk 20.0 $5.00 31

Chez Alcatraz cocktail hour and appetizers 60.0 $20.00 32

Mel's Drive-In American 50s restaurant 60.0 $20.00 33

Lombard's Seafood Grille flagship restaurant 80.0 $35.00 34

Shops:

Name Description Time Price To select Enter

Super Silly Stuff Minion plush toys apparel and more 60.0 $0.00 35

E.T.'s Toy Closet & Photo Spot E.T.-themed gift shop 30.0 $0.00 36

Harry Potter Harry Potter-themed gift shop 60.0 $0.00 37

Hello Kitty Hello Kitty-themed gift shop 40.0 $0.00 38

Universal Studios Store official source for all things Universal60.0 $0.00 39

Rosie's Irish Shop Irish apparel and keepsakes 40.0 $0.00 40

Shutterbutton's pictures that actually move 40.0 $0.00 41

Enter 's' to select, enter 'd' to delete, enter 'p' to check and print your selection list, enter 'q' to quit: s

Enter your activity selection, enter 'q' to quit selection: 1

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 3

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 5

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 7

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 9

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 11

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 12

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 13

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 19

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 15

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 24

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 34

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 27

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 35

Now decide how much you want to spend in shopping souvenir: 40

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: 37

Now decide how much you want to spend in shopping souvenir: 80

The selection has been added to your list.

Enter your activity selection, enter 'q' to quit selection: q

Enter 's' to select, enter 'd' to delete, enter 'p' to check and print your selection list, enter 'q' to quit: p

Here are the list activities of Plan A :

Name Description Time Price Select #

Ticket Park Admission -- 120 --

Ticket Express Pass -- 80 --

Men in Black Motion Simulation laser gun 40.0 $0.00 1

Revenge of the Mummy Thrill scary coaster 40.0 $0.00 3

Shrek 4-D Kid Friendly 4D Experience 30.0 $0.00 5

Kang and Kodos Kid Friendly Twirl 'n' Hurl 20.0 $0.00 7

Despicable Me Minion Motion Simulation 3-D ride 40.0 $0.00 9

Harry Potter Gringotts Multi-dimensional thrill ride 50.0 $0.00 11

TRANSFORMERS Motion Simulation 3-D ride 40.0 $0.00 12

Hollywood Rip Ride Scary towering coaster 40.0 $0.00 13

Beedle the Bard Retell Beedle the Bard 40.0 $0.00 19

Horror Make-Up Show Make-up & special effects 60.0 $0.00 15

Leaky Cauldron traditional British fare 60.0 $25.00 24

Lombard's Seafood Grille flagship restaurant 80.0 $35.00 34

The Fountain of Fair Fortune beers and other beverages 40.0 $20.00 27

Super Silly Stuff Minion plush toys apparel and more 60.0 $40.00 35

Harry Potter Harry Potter-themed gift shop 60.0 $80.00 37

Warning: out of money or out of time! updated your list.

The total time needed for your selected activities is: 700.0 minutes, Max time is 720m

The remaining budget for your selected activities is: $-50.00

Enter 's' to select, enter 'd' to delete, enter 'p' to check and print your selection list, enter 'q' to quit: d

Enter activity to delete, enter 'q' to quit deletion: 37

Enter activity to delete, enter 'q' to quit deletion: q

Enter 's' to select, enter 'd' to delete, enter 'p' to check and print your selection list, enter 'q' to quit: p

Here are the list activities of Plan A :

Name Description Time Price Select #

Ticket Park Admission -- 120 --

Ticket Express Pass -- 80 --

Men in Black Motion Simulation laser gun 40.0 $0.00 1

Revenge of the Mummy Thrill scary coaster 40.0 $0.00 3

Shrek 4-D Kid Friendly 4D Experience 30.0 $0.00 5

Kang and Kodos Kid Friendly Twirl 'n' Hurl 20.0 $0.00 7

Despicable Me Minion Motion Simulation 3-D ride 40.0 $0.00 9

Harry Potter Gringotts Multi-dimensional thrill ride 50.0 $0.00 11

TRANSFORMERS Motion Simulation 3-D ride 40.0 $0.00 12

Hollywood Rip Ride Scary towering coaster 40.0 $0.00 13

Beedle the Bard Retell Beedle the Bard 40.0 $0.00 19

Horror Make-Up Show Make-up & special effects 60.0 $0.00 15

Leaky Cauldron traditional British fare 60.0 $25.00 24

Lombard's Seafood Grille flagship restaurant 80.0 $35.00 34

The Fountain of Fair Fortune beers and other beverages 40.0 $20.00 27

Super Silly Stuff Minion plush toys apparel and more 60.0 $40.00 35

The total time needed for your selected activities is: 640.0 minutes, Max time is 720m

The remaining budget for your selected activities is: $30.00

Enter 's' to select, enter 'd' to delete, enter 'p' to check and print your selection list, enter 'q' to quit: q

Thanks for using Universal Studios Day Planner 1.0! See you again soon!

* Challenge I faced as I made the project:
  + First of all, my challenge is how to design the flow of the project. It took me some time to figure out the final flow of the program after many rounds of designs.
  + As the project goes on, I add more controls/exceptions/classes/facilitating functions to the program to perfect everything.
  + I am on a business trip as I am doing this project. To be honest, I feel very stressful time-wise. I do not have enough time to perfect the program. However, this class has helped me understand the use of class and object-oriented programing. At the end, I am happy with the outcome.
  + I entered the activities information and data bases by hand, literally enter the class object information by looking up Google and type it in each class constructor. It took some quite time to do it. It would be very hard to compose the database by hand if the data base is big (big data). I would like to know if there were methods that allow programmers to create a database easier.