"Nephi's Journey" Program Requirements

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I.   Description

Follow the path of Nephi. The premise of the story is to follow 1 Nephi in The Book of Mormon. The adventures of Nephi and his family can lead to many decisions in the game. For example, Nephi is given the challenge of finding food for his family. The game will the present the options to hunt for food or stay with his family. If he hunts for food then he will break his bow. This and many more options are available in just one scene.

The game is to cover the events which took place only in the first book of Nephi. The basic premise is to use Nephi as the main character. He will follow the trials and quest as outlined in the first book of Nephi.

Your task will be guide Nephi and his family to the Promised land. You will need to complete a series of quests to reach the destination. A successful completion of a quest or task will allow you to move onto the next stage. In order to win the game you must successfully complete all the stages.

II   ***List of End User Stories or Scenes Needed for the Game:

Start program/Display welcome banner Main menu Help menu Game menu Reference menu (script ref) --- Story based on location and event that took place at each one. Includes things like Liahona instructions Start game View map Move to new location Explore location View list of Supplies taken into the wilderness View list of Treasure collected from Lehi's home.)	View list of Liahona choices *Complex equation 1 - collect different types of treasure from Lehi's house and/or barter with Laban. *Complex equation 2 - calculate how much space is needed on the boat based on the minimum sq ft per person and supplies. *Complex equation 3 - design and build an altar of stones Collect stones View inventory View path status Save Game Retrieve Game Arrive at Promised Land

*complex equations must have at least 3 values and 2 different operators.

Ⅲ   Description of End User Stories (***indicates an end user story)

***Start program
The end user enters the command to start the program. The computer displays a banner screen with a short description of the game. The player is prompted for and enters their name. The user enters their name and the computer displays a personalized welcome message and the Main Menu. An error message is displayed if an invalid name is entered and the player is prompted to re-enter a valid name or quit.

***Main menu
Display the following menu.

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G - Start game
H - Get help on how to play the game
S - Save game
R - Reference menu
L - Location list
E - Exit
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The end user (player) enters the selected item. The computer then displays the selected scene. If an invalid menu item is entered, the computer displays an error message and redisplays the main menu. The program terminates when Exit is selected.

***Help menu
The following menu is displayed.

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G - What is the goal of the game?
M - How to move
E - Estimating the amount of resources
Q - Quit
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The user selects one of the options and the appropriate help message is displayed. Return to either the either the Main or Game menu depending on which one was previously displayed before this menu was displayed. An error message is displayed and the menu is redisplayed when an invalid menu item is selected.

***Reference menu
We will list the completed stories which will include the scripture references. To be built after fully developed. Perhaps we can include story points to ponder as well.

   Visited by an angel

include an option to die from a heart attack.
Build an altar to the Lord and give sacrifices 1 Nephi 2:7
Nephi breaks bonds 1 Nephi 7:18
etc...

Start menu

The following menu is displayed.

N - Begin a new story
C - Continue a saved story
D - Display the completed stories.
Q - Quit

The player is prompted to start a new game or continue an existing saved game. The player selects a choice.

If continue game option is selected then the old game is read from a saved file. If no game has been saved then a message indicating that there is no saved game will be displayed. The player is then prompted to start a new game or return to the main menu. The Main Menu is redisplayed if that option was selected; otherwise, a new game is started and specified below.

If a new game was selected, the computer will:

- Prompt the user to select their character:
    - N - Nephi
    - L - Lehi
    - M - Laman
    - B - Laban
    - S - Sariah
    - W - Nephi's Wife
    - Z - Zoram
    - Q - Quit
- Prompt the player to enter the number of people who are traveling with you to the promised land. The player enters the number of people and the computer checks to see if an invalid amount has been entered. If an invalid value is entered display an error message and prompt the player to re-enter a valid number.
- Create and initialize all of the objects needed for the game.
- The Game Menu View is displayed.

***Game menu

The computer then displays the map of the Holy Land and the game menu below if a valid option is entered.

> V - View map
> I - View list of items in inventory (Treasure, Stones for Altar, etc)
> A - View list of characters
> S - View path status
> L - View contents of location
> M - Move person to new location
> E - Estimate the supplies needed
> C - Consult Liahona
> D - Design altar
> T - Collect treasure
> G - Gather stones
> B - Use bow to hunt
> W - Build altar
> P - Pack ship
> J - Launch ship
> H - Help
> Q - Quit

The user enters a choice and the computer switches to the selected view. When Quit is selected, display the Main Menu.

***View map
Map of Holy Land and portions of the Middle East and the Americas will be displayed.

***Move to new location

The computer displays a message prompting the player to enter the number of the location that they want to move to. The player enters the number of the location.

If the number is invalid, a message is displayed and the user is prompted to re-enter the number.

If the player enters a valid location, the computer will move the player in a straight line to the destination. If an obstacle is encountered along the way, the player is moved to the location in front of the obstacle and a message is displayed indicating the type of obstacle and the location of the obstacle on the map. The amount of the time taken to

travel to the new location is calculated and added to the total time taken, and then the map and game menu is redisplayed.

(If we must use coordinates, we will re-use a few of the locations below and assign them coordinates)

Locations:
1. *Jerusalem during the reign of Zedekiah, king of Judah. 1 Nephi 1:4*
2. *Enters the wilderness, traveled the shores of the Red Sea – 1 Nephi 2:4-5*
    a. *Task – Build an altar to the Lord and give sacrifices 1 Nephi 2:7*
3. *Lehi's tent by the Red Sea 1 Nephi 3:1*
4. *Wilderness - Return to Jerusalem to get the Plates of Brass 1 Nephi 3:2-3*
5. *Jerusalem – House of Laban 1 Nephi 3:10*
6. *Lehi's house – collect treasures 1 Nephi 3:16*
7. *House of Laban – try 2 1 Nephi 3:24-25*
8. *Wilderness – flee from Laban's servants 1 Nephi 3:26*
9. *Angel visit 1 Nephi 3:29*
10. *Streets of Jerusalem, night time – try3 – Nephi slays Laban 1 Nephi 4:7-18*
11. *House of Laban, retrieve plates 1 Nephi 4:20*
12. *Laban's treasury*
13. *Wilderness with Zoram, return to Lehi 1 Nephi 4:28, 38*
14. *Lehi's camp, Sariah rejoices 1 Nephi 5:7-8*
15. *Ishmael's home to get Wives 1 Nephi 7:3-5*
16. *Wilderness – rebellion of brothers 1 Nephi 7:6-7*
    a. *Nephi breaks bonds 1 Nephi 7:18*
17. *Lehi's camp with Ishmael's family 1 Nephi 7:22*
18. *Plate making – Lehi's camp 1 Nephi 9:2*
19. *Valley of Lemuel, Marriage 1 Nephi 16:7*
20. *Lehi's tent – finds the Liahona 1 Nephi 16:10*
21. *River Laman crossing 1 Nephi 16:12*
22. *Travel to Shazer 1 Nephi 16:13*
23. *Hunting by Shazer 1 Nephi 16:14*
24. *Wilderness travel 1 Nephi 16:17*
25. *Hunting – Nephi breaks bow 1 Nephi 16:18*
26. *Lehi consults Liahona, where Nephi needs to hunt 1 Nephi 16:27-30*
27. *Wilderness travel east 1 Nephi 17:1*
28. *Land of Bountiful 1 Nephi 17:5*
29. *Nephi Builds a ship 1 Nephi 17:8*
30. *Shocking experience 1 Nephi 17:54*
31. *Enter the ship 1 Nephi 18:5*
32. *Sail to the promised land 1 Nephi 18:8*
    a. *Nephi bound with cords 1 Nephi 18:11-12*

33. Arrive at promised land 1 Nephi 18:23
34 . Quit

Explore location

The computer displays a message describing the contents of the location and then the location is marked as visited. The map and game menus is then displayed with the contents of the location showing on the map.

Resource Inventory - Supplies taken into or used in the wilderness or on the boat

A menu showing the list of needed resources is displayed as shown below:

>   *P - Plates of Brass*
>   *L - Liahona*
>   *B - Bow*
>   *S - Stones (to build altar)*
>   *M - Meat collected from hunting*
>   *T - Timber*
>   *O - Ore (only include if we have a task to make tools to build ship)*
>   *G - Grains*
>   *O - Oil*
> *W - Drinking water*
>   *H - Honey*
>   *A - Salt*
>   *Q - Quit*

The player selects a resource. The computer displays message prompting the player to calculate and enter the amount needed for the trip. The user then enters the amount. If the amount entered is not a number or is too small or large, display an error message and then prompt the user to re-enter the amount needed.

If the amount is within the acceptable range, a message will be displayed showing the amount entered and the menu above redisplayed.

Display the Game Menu when Quit is selected.

Treasure Inventory   1 Nephi 3:16

>   *J - Jewelry*
>   P - Precious gems

T - Fine tableware (Laban could use it - think Living Scriptures "Lehi's cup")
S - Silver coins
G - Gold coins
Q - Quit

The player selects *an item to collect and the* computer adds the *item* to the inventory of *treasure*. Display the Game Menu when Quit is selected.

Liahona and it's instructions

Display the following menu and prompt the user to select an option.

O - Obey Liahona
 I - Ignore Liahona
R - Repent so the Liahona works again
Q - Quit

The player selects an option and the computer continues the story based on the option. Display the Game Menu when Quit is selected.

Collect supplies (both Resource and Treasure Inventory)

If player is in a location that has no supplies, a message is displayed indicating that there are no supplies in this location. Then display the Game Menu.

If this location contains supplies, prompt player to decide what percentage of supplies they will collect. The player enters an amount. An error message is displayed if an invalid value is entered and the player is prompt to re-enter a valid percentage.

If the player enters a valid percentage, the actual weight of the supplies is calculated and a check is made to see if the inventory needs that much weight. If the weight is too large an error message is displayed and player is prompted to enter a smaller percentage. When an acceptable amount is entered, add the amount collected to the inventory and reduce the amount of inventory needed by amount collected. Add the time required to collect the supplies to the total time and display the Game Menu.

Negotiate with Laban
(see "Collect supplies")

The following menu is displayed on the screen with instructions.

J - Jewelry
P - Precious gems
T - Fine tableware (Laban could use it - think Living Scriptures "Lehi's cup")
S - Silver coins
G - Gold coins
Q - Quit

Check to see if the treasure inventory is empty and display an error message and then display the Game Menu.

Check to see of the player is located at Laban's Palace. If not, display an error message to move to Laban's Palace and then display the Game Menu.

Check to see if there is enough treasure in the treasure inventory to satisfy Laban and his goons. Display a message indicating that more treasure is need and then display the Game Menu.

Once the player has collected the required treasure, display a message to return to Laban's Place to negotiate with Laban. When Laban takes the treasure, set the amount of treasure in the treasure inventory to zero. Add the amount of time taken with Laban to the total time, and then display the Game Menu.

***Calculate how much space is needed on the boat
   (see "Collect supplies")
   based on the minimum sq ft per person and supplies

The following menu is displayed on the screen with instructions.

P - Plates of Brass
L - Liahona
B - Bow
S - Stones (to build altar)
M - Meat collected from hunting
T - Timber
O - Ore (only include if we have a task to make tools to build ship)
G - Grains
O - Oil
W - Drinking water
H - Honey
A - Salt
Q - Quit

may need to revisit this for the calculations. Add in space for people and animals.

The user selects a type of barrel and the computer prompts the player to enters the diameter and height of the barrels to be built for that resource. If an invalid diameter, and/or height is entered then display an error message prompt the player to re-enter a valid measurement.

The system first calculates that the volume of the barrel and then calculates the maximum weight of the barrel when filled with the selected resource. The system then displays a message indicating that either the barrel is too small for the specified inventory item, too large and heavy for one person to carry, or that the barrel's size is just right. The player is prompted to re-enter a new height and width if the barrel size is either to small or too large. The height, diameter, volume and maximum weight of the barrel are saved when the size is just right. The statistics of the barrel is displayed followed by the menu above.

Display the Game Menu when Quit is selected.

Design and build an altar of stones (see "Collect supplies")

If the player is in the correct location to build an altar, prompt the player to enter the shape of altar (cylinder, bottom half of pyramid or whatever) they wish to build. There will be a key indicating the pounds of stone per shape. The player selects the shape of their choice. An error message is displayed if an invalid value is entered and the player is prompt to re-enter a valid shape. If the player enters a valid shape, instruct the player to collect the stones and return to the location. Display the Game Menu.

When player returns to build the altar, check to make sure that the required amount of stones needed are in their inventory. Display a message indicating that the required stones are missing from inventory if the stones are not in inventory and display the Game Menu.

View inventory

Display the amount of resources stored in inventory for each item in inventory and then display the Game Menu.

View path status

Display the the percentage of the path completed, the total number of days traveled, and the total time spent on the journey. Then redisplay the Game Menu.

***Save Game

Save the player, game, map, inventory items, and character data to a file and then display a message saying that the story was saved successfully. Then display the Main Menu.

***Retrieve Game

Read the player, game, map, inventory items, and character data from a file and then displays the Game Menu.

***Arrive at Promised Land

If the player has won the game then display a personalized congratulations message along with the total elapsed time it took to travel from Jerusalem to the Promised Land. Display the Main Menu.

IV Intro Story

This is the story of Nephi. He was raised in ancient Jerusalem by parents who loved and cared for him. Nephi was educated in both religious and worldly teachings. As Nephi grew he experience many different challenges but he remembered the teachings of the Lord and turned to him in his trials. The following events are what Nephi experienced on his odyssey to the promised land. Your goal is to successfully guide Nephi through these events.

REQUIRED PROGRAM ITEMS
1.   Intro Banner and input user name
2.   Menus
         a. Main
         b. Help
         c. Game play
         d. Resource menu
                 i. Story Menu
3.   3 different end user stories which require user input, complex equation
         a.
         b.
         c.
4.   Map

    a. 2 or 3 dimensional

    b.At least 25 different locations

5.   At least one story to move character to a different location

6.   3 or more item lists

    a. List 1

    b. List 2

    c. List 3

    d. List 4

7.   Story to save the game and restart saved game.

REQUIREMENTS DUE ON 16 JAN 16

1. **2-3 Paragraph description of the the game and it's goals**
2. **4 end user stories, main, help, game play, free choice (we will do a reference menu)**
3. **User stories for all other scenes needed to play the game**