

\* portion was either added after the initial design or substantially altered.

## Game

```
{
    create required variables at the top of the body
    print the arrival message
    as user to play or quite

    case: play
        * create a stack for photographs
        create all spaces and link them
        main while loop
            display the state of the user
                current space
                time left
            print the current space 'image'
            ask user for action
            move forward
                move user forward if current space has space connected in forward dir.
            move backward
                move user backward if current space has space connected in backward dir.
            move right
                move user right if current space has space connected in right dir.
            move left
                move user left if current space has space connected in left dir.
            * take photo
                take photo as string, insert 'photo' string into stack to use later
            * count photos
                copy photos to temp stack, print and pop the top to read out photos
            if timer runs out
                quit game
            if user takes all the photos needed
                end the game

    case: quit
        terminate the game loop, exit program
}
```

## Space / all derived classes

```
{
    space to be abstract, no instantiation needed.
    public:
        virtual set description function

        * link spaces function
            this function will link the space with 4 other spaces or NULL
        display link function
            this is a debug print function to print the linked spaces of the called space
        * fill image function
            this function reads in a formatted text file to a char array that will display an image
        * print image function
            this function prints the above char array as an image to the screen
}
```

protected:

getter functions for pointer

top pointer

right pointer

bottom pointer

left pointer

string description

## **Main**

{

splash screen

call game

}