

CSAT 3160: USER INTERFACE DESIGN

11am–11.50am, Monday & Wednesday | August–September, 2014 | Room BAB 302

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Office Hours: MW: 8-9am TR: 2-4pm and by appointment

Course Introduction

In this class you will learn how a user interacts with a machine, and develop optimal ways of presenting information and feedback in the clearest way possible. Emphasis will be on UI design for computer gaming. Please note that this User Interface Design class is a companion class to *Programming for User Interface Design*.

Learning Objectives

In this course, you will:

- Learn how to take complex ideas and present them in an easy-to-digest manner via techniques, such as intelligent organization and grouping, smart use of color, clear typefaces, removal of non-essential information, and the use of symbols instead of text.
- Consider how a user interacts with a machine, through text forms, keyboards, touch screens, voice, etc.
- Build suitable feedback responses, indicating a user's input has been accepted.

Grading and Evaluation

You will be graded on attendance and participation in discussions and critiques, homework projects, and a final examination. All assignments will be evaluated for effort, technical ability, concept, execution, and presentation.

Each project will be graded pass/fail. A pass earns you 100% and a fail earns you 0%. Details on how to pass each project is included in each project's description. Projects may not be resubmitted for re-grading so it is essential you contact the professor before the deadline if you have any questions.

Please note that work submitted **no later** than the start of class, the day of the deadline, will be graded. **Any work submitted past the start of class will be awarded a zero. There are no exceptions to this rule.**

Your final class grade will consist of:

- Twelve projects : 70%
- Attendance, participation, and in-class exercises : 20%
- Final exam : 10%

Materials and Text

- 4GB (at least) jump/flash drive
- Access to Adobe Illustrator and/or Adobe Photoshop, and Adobe InDesign

The required text for this course is access to Adobe Illustrator and/or Adobe Photoshop, and Adobe InDesign. A student subscription to these programs is available at www.adobe.com. A jump-drive is also essential for saving your work. You are expected to back up your projects to another location, such as at a free service like www.dropbox.com or www.google.com/drive. Not submitting a project because you lost your jump-drive or some other technical difficulty **will not be accepted as an excuse** and will earn you a zero for that project.

Availability of Adobe Products

You can find Photoshop, InDesign, and Illustrator in the computer lab in the ACR building and in FAB 207, BAB 302-303. Provided you have your own computer, you can join the Creative Cloud program from Adobe

and have access to the software you need for a monthly fee. Details can be found here:
<http://www.adobe.com/products/photoshop/buying-guide.edu.html>

Rules and expectations

Attendance is **compulsory**. If you must miss a class for a school-related activity, the absence must be discussed (and arrangements made regarding coursework) **prior to the absence**. If you must miss a class for an emergency or illness, please contact me **by email or phone as soon as possible**. Six (6) absences result in you being dropped from the course with a grade of “F” as per Sul Ross State University policy. Five (5) unexcused absences will result in a zero for your attendance and participation grade. Arriving to class **on time** is also essential – **arriving late more than two times will be counted as one absence. Lateness is defined as 10-minutes after the start of class.**

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|---------------------------------|------|--------------------------------|--------|
| • One (1) unexcused absence: | -20% | • Four (4) unexcused absences: | -80% |
| • Two (2) unexcused absences: | -40% | • Five (5) unexcused absences: | - 100% |
| • Three (3) unexcused absences: | -60% | • Six (6) unexcused absences: | FAIL |

No cell phone usage. No social-networking websites. No instant-messaging. No checking personal emails. Headphones and earbuds are allowable **ONLY** when you are working, but not when the professor or a fellow student is speaking. **Doing any of these will drastically drop your attendance and participation grade.**

Late work will not be accepted.

Plagiarizing, cheating, or any other dishonest behavior in the classroom will not be tolerated. Rules and regulations regarding plagiarism, dishonesty, and other issues concerning classroom participation can be found in University Rules and Regulations and Student Handbook. This course will abide by these established policies. A student found to be engaging in these activities will be penalized to the full extent of Sul Ross State University policy.

ADA Needs

It is Sul Ross State University policy to provide reasonable accommodations to students with disabilities. If a student would like to request such accommodations because of a physical, mental, or learning disability, please contact the ADA Coordinator in Ferguson Hall, room 112 or call (432) 837-8691. Please relate all requests for special accommodations to the instructor by the third class period.

Recommended Reading

MULLET, K and SANO, D, “Designing Visual Interfaces,” Prentice Hall, USA, 1995, 1st ed.

TIDWELL, J, “Designing Interfaces,” O’Reilly, USA, 2011, 2nd ed.

SAUNDERS K, NOVAK, J, “Game Development Essentials: Game Interface Design,” Cengage, USA, 2013, 2nd ed.

Please note that this syllabus is subject to change.

COURSE SCHEDULE

WEEK ONE

- Aug 25 (M): Class introduction and syllabus overview.
Homework – Come to the next class with one good and one bad example of user interface design. Please email as a JPEG to the professor before the next class begins.
- Aug 27 (W): **PRESENTATION 01: History of Human Computer Interaction (HCI).**
Student Presentations: Good and bad U.I. examples.

WEEK TWO

- Sept 1 (M): ---Labor Day---
- Sept 3 (W): Introduction to Adobe InDesign and Adobe Photoshop.
PRESENTATION 02: Introduction to Grids. Examples from games, as well as examination of US National Park Service grid system.
Project One: Diegetics – Answer a series of questions on how you can convey information diegetically.

WEEK THREE

- Sept 8 (M): **DUE TODAY. Project One: Diegetics**
Introduction to group project.
PRESENTATION 03: Introduction to flow diagrams, sketches, and wireframing.
Project Two: Grids – Design a navigation system for a Netflix viewer on a Smart TV.
- Sept 10 (W): Continue working on your Netflix project.

WEEK FOUR

- Sept 15 (M): **DUE TODAY. Project Two: Grids.**
PRESENTATION 04: Using color to help with organization and information priority.
Project Three: Wireframing – Sketch out and wire-frame a version of Rock-paper-scissors.
- Sept 17 (W): Continue working on Rock-Paper-Scissors game.

WEEK FIVE

- Sept 22 (M): **DUE TODAY. Project Three: Wireframing**
Color Association Exercise.
Project Four: Color – Ingredient inventory for cooking game.
- Sept 24 (W): Continue working on your color project.

WEEK SIX

- Sept 29 (M): **DUE TODAY. Project Four: Color**
PRESENTATION 06: Survey of input methods.
PRESENTATION 07: Typography for the screen. Formatting large amounts of text, along with small pieces of text for buttons, etc. Choosing san-serif fonts over serif fonts.
Project Five – Format large amounts of text for an iPad and an iPhone.
- Oct 1 (W): Continue working on your text project.

WEEK SEVEN

- Oct 6 (M): **DUE TODAY. Project Five: Text**
PRESENTATION 08: Introduction to icons and menus.
Project Six: Icons and menus – Create a set of menus and icon for your own game or the game details provided by the professor.
- Oct 8 (W): Continue working on your icon and menu group project.

WEEK EIGHT

- Oct 13 (M): Continue working on your icon and menu group project.
Work on your Group project.
- Oct 15 (W): Continue working on your icon and menu group project.
Work on your Group project.

WEEK NINE

- Oct 20 (M): **DUE TODAY. Project Six: Icon and Menu**
PRESENTATION 09: Introduction to text input and buttons.
Project Seven: Inputs – Build buttons, conversational screens, and a registration form.
- Oct 22 (W): Continue working on project seven.

WEEK TEN

- Oct 27 (M): **DUE TODAY. Project Seven: Inputs**
PRESENTATION 10: Heads-up displays.
Project Eight: HUDs – Create HUDs for a horror game and fighting game.
- Oct 29 (W): Continue working on your HUD designs.

WEEK ELEVEN

- Nov 3 (M): **DUE TODAY. Project Eight: HUDs**
PRESENTATION 11: Introduction to skeuomorphs. Creating moods.
Project Nine: Moods (select two) – 1) Disco-era style interface for a dancing game using Microsoft Kinect. 2) 1920s graphic adventure. 3) Fishing game using the Nintendo Wii aimed at EITHER a hobbyist angler/fisher or 3-5 year olds. 4) Your own game concept.
- Nov 5 (W): Continue working on your mood mock-up projects.

WEEK TWELVE

- Nov 10 (M): **DUE TODAY. Project Nine: Moods**
PRESENTATION 12: Maps and navigation methods.
Project Ten: Maps – Build a map of the Sul Ross campus, along with a legend. Duplicate your map and show some sample paths.
- Nov 12 (W): Continue working on your map project.

WEEK THIRTEEN

- Nov 17 (M): **DUE TODAY. Project Ten: Maps**
PRESENTATION 13: Audio and visual feedback.
Project Eleven: Feedback – Use InDesign to create a maze game where you cannot touch the sides of the walls. Doing so results in an audio and visual warning. Include at least three

'save' points that also use audio and visual feedback, as well as a mock-up of a score, lives left, exit button, and restart button. Your game must also include a title screen.

Nov 19 (W): Continue working on your maze game.

WEEK FOURTEEN

Nov 24 (M): **DUE TODAY. Project Eleven: Feedback**

PRESENTATION 14: Inventories

Project Twelve: Inventories – Create an inventory screen for a children's game where the aim is to collect insects. You must also design an inventory screen for a spelunking (cave exploration).

Nov 26 (W): --- *Thanksgiving Break (Nov. 26-28)* ---

WEEK FIFTEEN

Dec 1 (M): Group project.

Dec 3 (W): **DUE TODAY. Project Twelve: Inventories**

Group project.

Group project is due at **5pm, December 7.**

WEEK SIXTEEN

Dec 8-11 EXAMINATION. Present your group projects to the class.

USER INTERFACE DESIGN PROJECTS

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Please note that this document is subject to change

---GROUP PROJECT---

Working with another student or own your own, mock up the following screens for a game of your own choosing. The game may be an existing title that needs improving, or your own invention.

- 1) A loading screen
- 2) A title screen
- 3) A customization screen
- 4) A How to Play screen or mockup of a tutorial level
- 5) The main play area where the game occurs. Include all necessary elements needed – perhaps virtual joysticks, score, dialog boxes,
- 6) A game over screen
- 7) A high score entry screen

Grading

Do the following to pass this project:

- Provide all seven screens.
- Use good layout, color, typography, etc.

Due Date

Your seven screens must be emailed to adumitrescu@sulross.edu no later than 5pm, December 7. This project will be graded from 0-100% and you will present it to the class during exam week. Projects received after the due date will receive a zero.

---PROJECT ONE – Diegetics---

Providing information diegetically is a way of keeping the player immersed in the game world. For instance, a textbox popping up to convey a message will temporarily take you out of the story, whereas the same information being conveyed vocally by a character is more immersive.

Keeping that in mind, how could you show the following information diegetically? Remember that your solutions do not have to be visual – they could also affect feedback and input. Be aware too that any visual additions you suggest need to be animated, creating extra work for the artists and also making the game slightly larger. Please provide two (2) answers per question.

1. Time passing
2. Time left to complete a task
3. Drunk
4. Fatigue
5. Damage to a vehicle
6. Power to a magical weapon
7. Objects collected
8. A save point

Grading

Do the following to pass this project:

- Provide TWO answers per question, resulting in sixteen answers.
- Submit your work in Microsoft Word format (.DOC or .DOCX). Do not paste it into an email, or use any other text format.

Due Date

Your sixteen answers must be emailed to adumitrescu@sulross.edu as a Word document no later than the beginning of class, September 8. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT TWO - Grids---

Load up InDesign and set up a 1920 x 1080 pixel sized interactive document (you may also use PowerPoint but will not have the interactive functionality that InDesign offers). Blackboard has a zip file with 30 movie thumbnails (206x294px) that you can use for this project. Design a grid system where the following information is displayed:

- **MAIN SELECTION PAGE:** At least eight (8) movie thumbnails, as well as a way to navigate through the other movies in the queue. Hovering over an image should display that title's name, year of release, and length (you may invent the year of release and length).
- **SELECTED MOVIE PAGE:** Once a movie is selected, more details, such as a short plot description, as well as a larger version of the chosen thumbnail. Feel free to generate filler text for this (e.g. - <http://www.blindtextgenerator.com/lorem-ipsum>), or grab it from wikipedia.org or imdb.com

Organization is important in this project. You should not have too many pieces of information on the screen, but you also should not cram too much onto the page too. A successful solution to this project will require balance.

Navigation of this project is achieved using the Smart TV's remote control. Besides the numbers 0-9, you may use up, down, left, and right arrow keys. Have a separate screen explaining how you plan on navigating through the movie choices.

Grading

Do the following to pass this project:

- Include **two** main selection pages, **three** selected movie pages, and one page detailed navigation control using the remote control.
- Organize your information well, and make good use of color and typography.

Due Date

Your InDesign file must be emailed as an Interactive PDF to adumitrescu@sulross.edu no later than the beginning of class, September 15. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT THREE - Wireframing---

Sketch out on paper your ideas for a digital version of Rock-paper-scissors. Once you are satisfied with your ideas, use Illustrator to wireframe your design. The screen resolution will be 1920 x 1080 px.

Use the interactive functions of InDesign to mockup screens for the following.

- A title screen that states "Rock! Paper! Scissors!" along with buttons for the following screens - start, settings, highscore, help, credits, and quit.
- Note that each button should be interactive and should take you to that particular page (apart from the quit button).
- **Start** - This takes you to a mock-up of the main gameplay screen. Show where the score, pause, and graphics should be.
- **Settings** - This screen allows you to change the graphics quality, music volume, SFX volume, and restore to defaults setting. Make sure you can exit this screen.
- **Highscore** - Should show the top five or ten players, as well as their scores. Make sure you can exit this screen.
- **Help** - State the basic rules of the game. Make sure you can exit this screen.

- **Credits** - Lists the programmer(s), artists, sfx artists, musicians, and producer (feel free to use any names you like). Make sure you can exit this screen.

Grading

Do the following to pass this project:

- Include the pages listed above.
- Organize your information well, and make good use of color and typography.

Due Date

Your InDesign file must be emailed as an Interactive PDF to adumitrescu@sulross.edu no later than the beginning of class, September 22. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT FOUR - Color---

Design an ingredient selection screen for a cooking game. Platform will be a PC with a screen resolution of 1920 x 1080px. You may use InDesign, Photoshop, or PowerPoint.

Use color to separate each category: Meat, Vegetable, Fruit, and Spices. Each category must have at least **four (4)** components and must use color to help differentiate each section.

For each component you also need to use color to signify when an ingredient is not available.

Grading

Do the following to pass this project:

- Make good use of color to assist with categorization, and general aesthetics.
- Organize your information well, and make good use of layout and typography.

Due Date

Your screens must be emailed to adumitrescu@sulross.edu no later than the beginning of class, September 29. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT FIVE - Text---

Design screens in InDesign that display the text below. Consider the contents of each block of text and find appropriate colors, typefaces, graphics, buttons, etc.

The text must be formatted twice - once for an iPad Air, and once for an iPhone 5s. On both screens consider how you will navigate through the text. Examples include navigational aids such as scrollbars and buttons.

Besides being easy to navigate, each screen must reflect the tone of that particular piece of text.

(Text is taken from www.wikipedia.org)

1) One Thousand and One Nights

The main frame story concerns a Persian king and his new bride. He is shocked to discover that his brother's wife is unfaithful; discovering his own wife's infidelity has been even more flagrant, he has her executed: but in his bitterness and grief decides that all women are the same. The king, Shabryar, begins to marry a succession of virgins only to execute each one the next morning, before she has a chance to dishonour him. Eventually the vizier, whose duty it is to provide them, cannot find any more virgins. Scheherazade, the vizier's daughter, offers herself as the next bride and her father reluctantly agrees. On the night of their marriage, Scheherazade begins to tell the king a tale, but does not end it. The king, curious about how the story ends, is thus forced to postpone her execution in order to hear the conclusion. The next night, as soon as she finishes the tale, she begins (and only begins) a new one, and the king, eager to hear the conclusion, postpones her execution once again. So it goes on for 1,001 nights.

2) Beowulf

The main protagonist, Beowulf, a hero of the Geats, comes to the aid of Hroðgar, the king of the Danes, whose great

hall, Heorot, is plagued by the monster Grendel. Beowulf kills Grendel with his bare hands and Grendel's mother with a sword of a giant that he found in her lair.

Later in his life, Beowulf is himself king of the Geats, and finds his realm terrorised by a dragon whose treasure had been stolen from his hoard in a burial mound. He attacks the dragon with the help of his thegns or servants, but they do not succeed. Beowulf decides to follow the dragon into its lair, at Earnanæs, but only his young Swedish relative Wiglaf dares join him along with Tinsban. Beowulf finally slays the dragon, but is mortally wounded. He is buried in a tumulus or burial mound, by the sea.

Beowulf is considered an epic poem in that the main character is a hero who travels great distances to prove his strength at impossible odds against supernatural demons and beasts. The poem also begins in *medias res* ("into the middle of affairs") or simply, "in the middle", which is a characteristic of the epics of antiquity. Although the poem begins with Beowulf's arrival, Grendel's attacks have been an ongoing event. An elaborate history of characters and their lineages is spoken of, as well as their interactions with each other, debts owed and repaid, and deeds of valour.

3) The Canterbury Tales

The *Canterbury Tales* is a collection of stories written in Middle English by Geoffrey Chaucer at the end of the 14th century. The tales (mostly written in verse, although some are in prose) are presented as part of a story-telling contest by a group of pilgrims as they travel together on a journey from Southwark to the shrine of Saint Thomas Becket at Canterbury Cathedral. The prize for this contest is a free meal at the Tabard Inn at Southwark on their return.

After a long list of works written earlier in his career, including *Troilus and Criseyde*, *House of Fame*, and "Parliament of Fowls", *The Canterbury Tales* was Chaucer's magnum opus. He uses the tales and the descriptions of its characters to paint an ironic and critical portrait of English society at the time, and particularly of the Church. Structurally, the collection resembles *The Decameron*, which Chaucer may have read during his first diplomatic mission to Italy in 1372.

It is sometimes argued that the greatest contribution that this work made to English literature was in popularizing the literary use of the vernacular, English, rather than French or Latin. English had, however, been used as a literary language for centuries before Chaucer's life, and several of Chaucer's contemporaries—John Gower, William Langland, and the Pearl Poet—also wrote major literary works in English. It is unclear to what extent Chaucer was responsible for starting a trend rather than simply being part of it. Also, while Chaucer clearly states the addressees of many of his poems (the *Book of the Duchess* is believed to have been written for John of Gaunt on the occasion of his wife's death in 1368), the intended audience of *The Canterbury Tales* is more difficult to determine. Chaucer was a courtier, leading some to believe that he was mainly a court poet who wrote exclusively for nobility.

Grading

Do the following to pass this project:

- You do not have to include all of each of the three pieces of text (that's where your scrollbars or other navigation elements will suggest there's more) but enough to show a large density of text that's still easy to read.
- Include navigation aids such as buttons, typefaces, text large/smaller buttons, etc.
- Use appropriate typefaces and colors. Regarding color, it's always best to put dark text on light paper (not necessarily white). Light text on dark paper works for small areas of text.
- Provide a total of six screens – one for an iPad Air, and one for an iPhone 5s.

Due Date

Your screens must be emailed to adumitrescu@sulross.edu no later than the beginning of class, October 6. This project will be graded pass/fail. Projects received after the due date will receive a zero.

--- PROJECT SIX - Icons and Menus---

For this project, you may design icons and menus/customization screens for your own game or instead use the example below. If you choose your own game, then you must provide at least the same amount of content as the example project.

---PART ONE---

Design eight (8) icons for a game where you control a robot entering a hostile environment. Icons require a lot of work and I expect you to sketch out on paper at least three ideas for each icon. The icons needed are as follows:

- | | |
|-----------------|-------------------|
| 1) Hail (greet) | 5) Ask a question |
| 2) Attack | 6) Yes |
| 3) Pick-up | 7) No |
| 4) Drop | 8) Leave |

---PART TWO---

Build a customization page for the robot game with the following elements:

Robot Name: textbox.

Robot color: your choice of colors.

Accessories: number of wheels, number of legs, number of arms, number of cameras, number of number of lasers, long-range scanner, heat sensor, number of batteries, physical storage capacity for storage.

Visualization: a mockup of the robot as it's currently outfitted (this does not have to be functional).

Grading

Do the following to pass this project:

- Provide a mocked up robot customization page making good use of color, typography, layout, and buttons.
- Design eight icons. The pencil sketches are essential to the project but do not have to be emailed – I'll review these in class.

Due Date

Your screens must be emailed to adumitrescu@sulross.edu no later than the beginning of class, October 20. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT SEVEN – Text input and buttons---

Build various forms that uses text boxes, sliders, radio buttons, and allows for a digital signature. Create a form for the following situations:

1. Create a registration page for a horror game in an iPad Air format: Name [text box], address [text box], country [drop-down menu], age range [slider ranging from 13-120], email address [text box], and signature box for a horror game registration page.
2. Design the following conversation and response screens for an iPad Air (feel free to come up with your own dialogues) :
 - 1) The rusted, creaking, devious robot drags itself to you, and stops close enough that you could kick it in its flickering, electronic face. "I have something to tell you, before I die," it says. Do you...
 - Kick it repeatedly and then spit on its worthless body?
 - Ask it what it wants to tell you?
 - Offer to help it?
 - 2) You begin your first day as a court jester and enter a court where sullen faces are everywhere. Approaching the King, who looks as if he's chewing bees, do you...
 - Tell that joke about the turnip, dog, and goose-fat?

- Juggle some balls and ‘accidentally’ drop them in order to make him laugh?
- Beat yourself with a stick, in the hope of making him smile?

Grading

Do the following to pass this project:

- Create one registration page and two conversation and response screens.
- Organize your information well, and make good use of layout and typography.

Due Date

Your screens must be emailed to adumitrescu@sulross.edu no later than the beginning of class, October 27. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT EIGHT – Heads up display---

Create the following heads-up display for the following types of game using your own photos or art:

- 1) Horror - Virtual d-pad and two buttons, time left, health bar, score, and pause. Game intended for iPad Air.
- 2) Fighting game - Low, medium and high-powered punch. Low, medium, and high-powered kick. Pause. Score. Health bar. Enemy health bar. Game intended for PC display (1920x1080px).

Grading

Do the following to pass this project:

- Build your screens so the buttons are not obtrusive but also not difficult to find.
- Provide a total of two screens.

Due Date

Your screens must be emailed to adumitrescu@sulross.edu no later than the beginning of class, November 3. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT NINE – Creating Moods---

Use color, typefaces, style and placement of graphics to suggest the following styles of game. Use InDesign, Illustrator, or Photoshop. You may also use traditional art but MUST digitize it and add some digital elements, such as color and some typography.

Mock up **two** screens for **two** of the concepts listed below (a total of four screens):

- 1) Disco-era style interface for a dancing game using Microsoft Kinect.
- 2) 1920s graphic adventure.
- 3) Fishing game using the Nintendo Wii aimed at EITHER a hobbyist angler/fisher or 3-5 year olds.
- 4) Your own game concept.

Grading

Do the following to pass this project:

- Provide two screens for each game, resulting in a total of four screens.
- Organize your information well, and make good use of layout and typography.
- Successfully capture the mood dictated by the game theme.

Due Date

Your screens must be emailed to adumitrescu@sulross.edu no later than the beginning of class, November 10. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT TEN – Maps---

Build a map of the Sul Ross campus, along with a legend. Duplicate your map and show some sample paths. Color must be used wisely, and each building should be clearly distinguishable.

Grading

Do the following to pass this project:

- Ensure your map is clear, and easy to read.
- Create two versions of the map – one with a plotted path from one location to another, and another without.

Due Date

Your map must be emailed to adumitrescu@sulross.edu no later than the beginning of class, November 17. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT ELEVEN – Feedback---

Use InDesign to create a maze game where you cannot touch the sides of the walls. Doing so results in an audio and visual warning. Include at least three 'save' points that also use audio and visual feedback, as well as a mock-up of a score, lives left, exit button, and restart button. Your game must also include a title screen. Maze functionality can be simulated using the interactive elements of InDesign.

Grading

Do the following to pass this project:

- Create a functional maze that displays immediate feedback. Due to the limitations of InDesign, you may not be able to add all the functionality you want. In these instances, have at least a graphical representation.

Due Date

Your maze must be emailed as an interactive PDF to adumitrescu@sulross.edu no later than the beginning of class, November 24. This project will be graded pass/fail. Projects received after the due date will receive a zero.

---PROJECT TWELVE – Inventory---

- 1) Create an inventory screen for a children's game where the aim is to collect flowers. Players can collect a maximum of 12 *species* of flowers, with multiple amounts of each species. For example, the inventory may show 5 daisies, 2 roses, etc. The size of the inventory screen is up to you and may be full screen or part of the gameplay area. Set up your InDesign document as a 1920x1080px sized screen.
- 2) Design an inventory screen for a spelunking (cave exploration) game where you see treasures collected, food available, flares left (for frightening away cave creatures), and pieces of rope (for climbing). Set up your InDesign document for an iPhone 5s sized screen.

Grading

Do the following to pass this project:

- Make good use of color to assist with categorization, and general aesthetics.
- Provide one screen for each, resulting in a total of two screens.

Due Date

Your screens must be emailed to adumitrescu@sulross.edu no later than the beginning of class, December 3. This project will be graded pass/fail. Projects received after the due date will receive a zero.