

Appendix

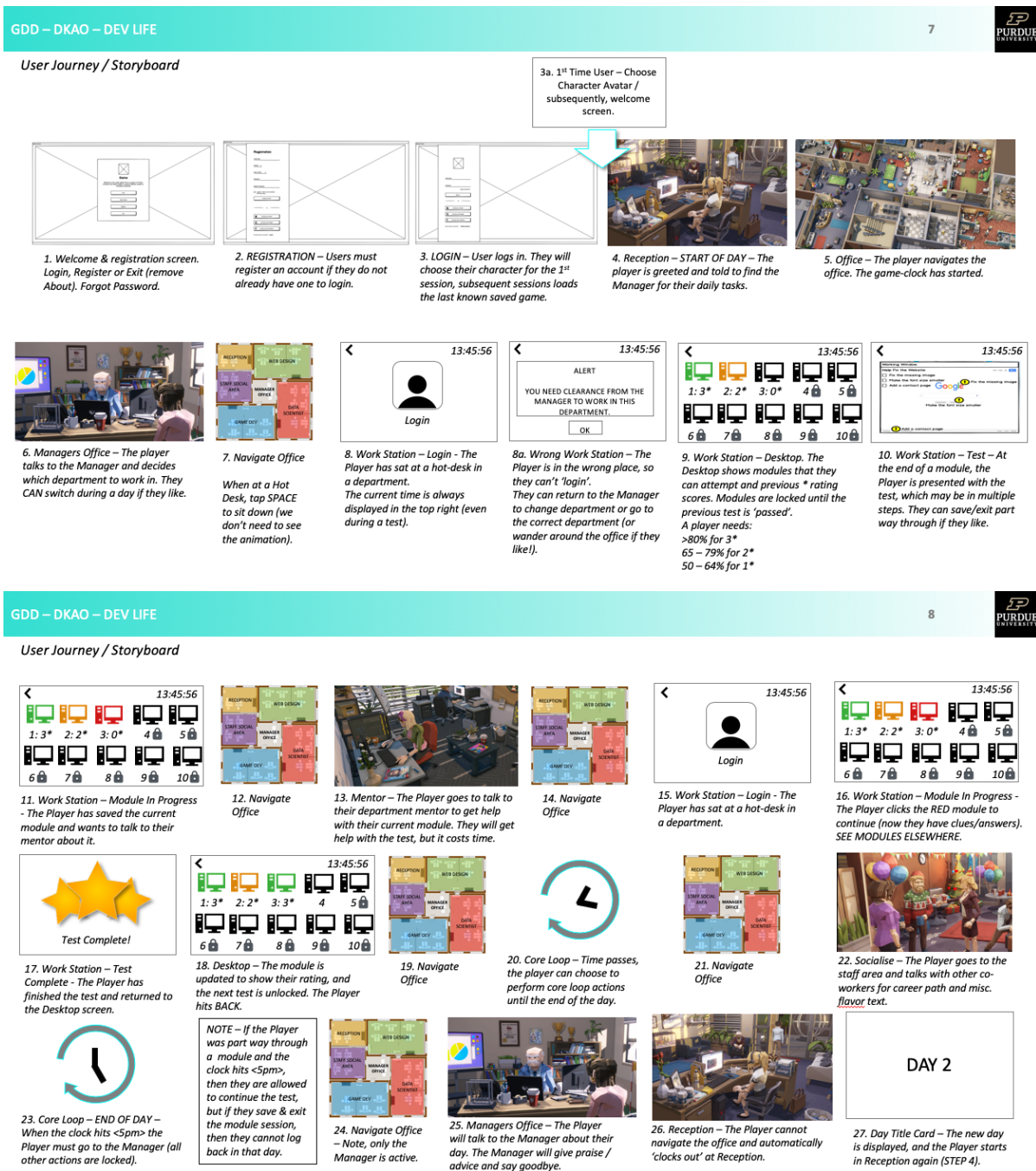
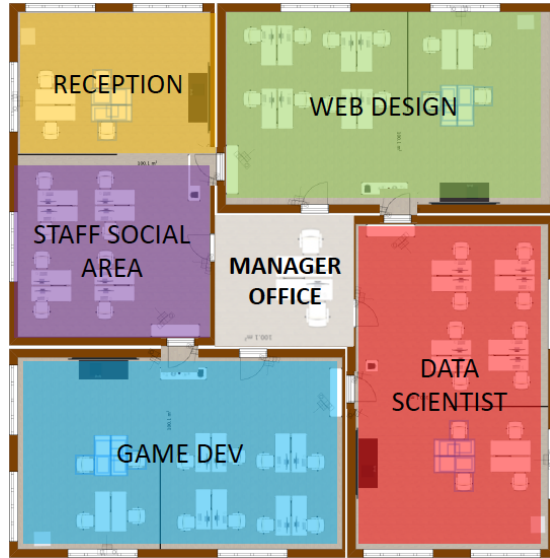


Figure 1: Storyboard of the proposed game.



*"Welcome to Tech-co, I'm sure you'll fit in just fine around here...
And if you don't, well, you'll be fired!
Ha ha... Only joking. You'll get used to my sense of humour. Now let me show you around..."*

Figure 2: The office environment.

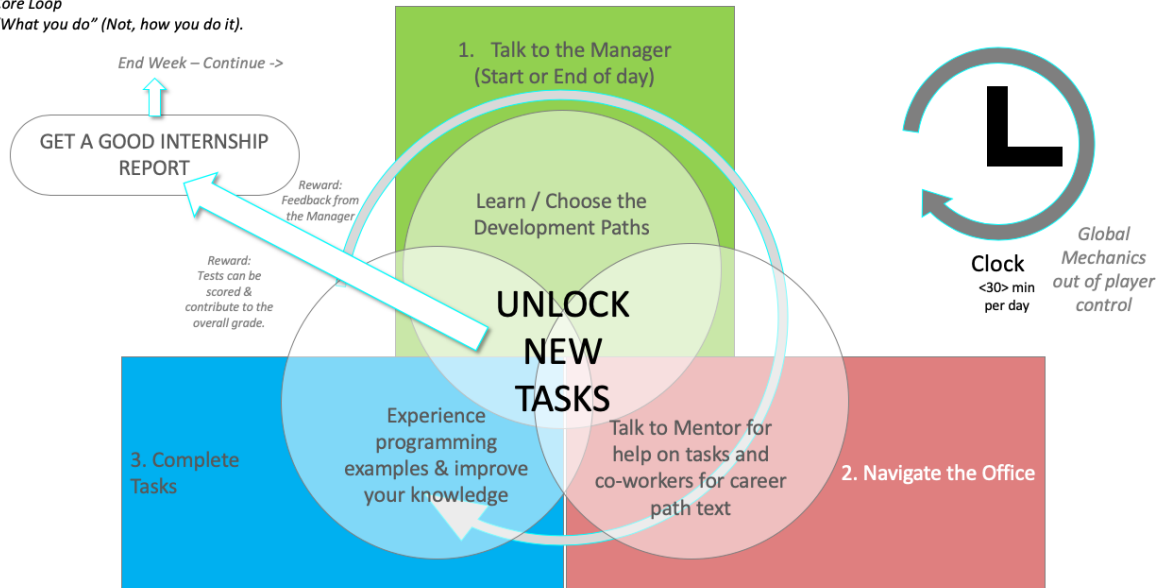
Core Loop*"What you do" (Not, how you do it).*

Figure 3: Core engagement loop.

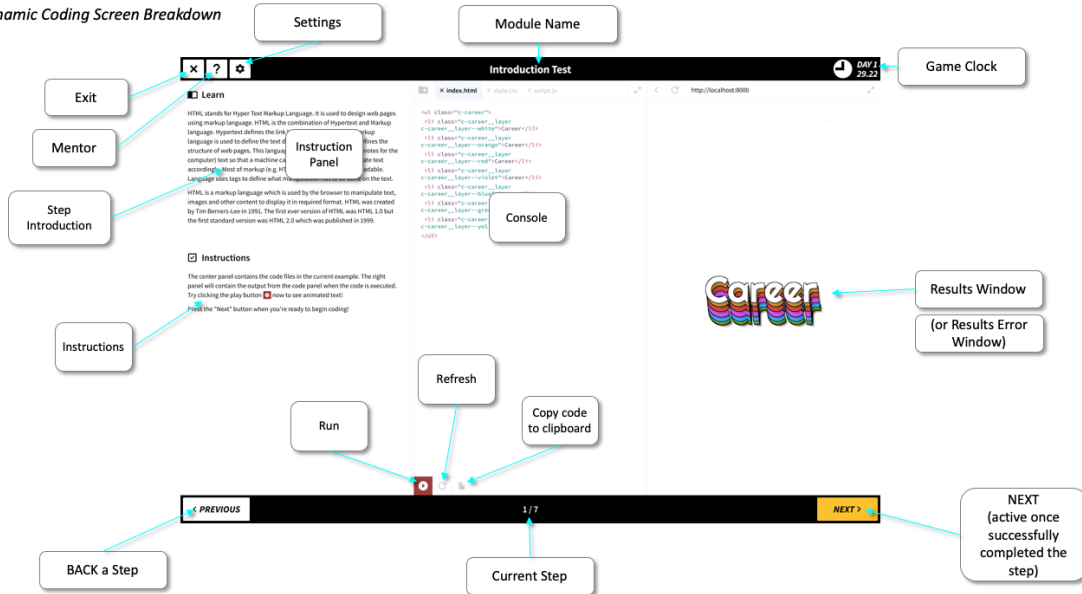
Dynamic Coding Screen Breakdown

Figure 4: Interactive coding screen.

In the communal area, there is a laptop that has the company job board on. The Player can access this to view a summary of the Career paths and other information, typical of a job seeker. For example, job titles, duties, salary, location. A list of actual companies that hire in that domain.

NOTE – The Job Board will also be a module given by the Manager to complete from time to time (to guide them to the computer). Job Board information WILL form part of the questions in the quiz tests for the module.

The screenshot displays a 'TECH-CD JOB INFORMATION BOARD' with a 'Web Development' section. It features a career path diagram with nodes for Junior, Midlevel, and Senior roles, and a 'PATH' button. Below the diagram are three job advertisements: Junior Full stack developer (\$25,000), Midlevel Web developer / Web producer - Seattle (\$35,000), and Senior Python Developer - Indianapolis (\$65,000). Each advertisement includes a brief overview, responsibilities, requirements, and reference ID. To the right, there is a 'SKILL OR TOOL' table comparing skills for Web Designer and Web Developer roles, and an 'ADVANCED TOOLS' table listing various tools and their proficiency levels.

TECH-CD JOB INFORMATION BOARD
Web Development

Junior Full stack developer
\$25,000
Wanted, with a keen interest in PHP / Laravel / Symfony / Wordpress, who is ready to join our growing Development team. You will be responsible for the maintenance and update of existing systems as well as communicating our services clients to provide break fix solutions.

Key Technical Competencies

- PHP 7 - Object Oriented
- MySQL 5.6+
- HTML5 / CSS3/SASS / Bootstrap
- Responsive Design
- Symphony / Laravel / Wordpress
- Version Controlling (Git)
- Browsers / Usability Testing
- Experience in consuming REST / SOAP APIs

Must Haves

- Write clean code to develop functional web applications
- Troubleshoot and debug applications
- Manage cutting-edge technologies to improve legacy applications
- Collaborate with front-end developers to integrate user-facing elements with server-side logic

Attitude & Application

- Take responsibility for the performance and delivery of your own work
- Be willing to put in extra work and time when it is required to get the job done
- Be organized and effectively manage your time and workload

Fifteen Skills

- Ability to live by our culture and values: Mutual respect, Idem, have fun, ability to innovate and exceed customer expectations on time every time.
- Hours and Environment: Monday to Friday, 9am to 5:30pm based at the Fifteen Office. The role may also involve visiting clients.

Midlevel Web developer / Web producer - Seattle
\$35,000
A technical Web developer / Web producer with excellent website development, HTML, CSS and ideally some SEO knowledge is required by a leading professional services company based in Nottingham. This role will be responsible for the updating, maintenance of the organisation's website and being actively involved in the delivery of digital projects.

This is a brand new role for the organisation due to growth in the marketing department. If you have building new and editing web pages using HTML and driving SEO performance, then this is certainly the role for you as there is a mix of HTML development, analysis and insight within the role.

Experience required:

- Previous experience in a technical web developer / web producer or similar role
- HTML coding experience, be able to create new web pages and edit existing ones
- WordPress
- CRM experience
- Testing the website for functionality
- Knowledge of Google Analytics, Hoot or other relevant web analytics solutions to produce reports and give business insight and SEO activities would be a bonus
- Working with the wider marketing team, especially content to ensure SEO efficiency

The role is a new position within a growing Digital marketing team, part of a wider marketing function. You will get a chance to own the entire company website and will be involved in a number of exciting projects moving forward. At the moment, an external agency manages the website, but they are looking to bring this in house, so the Web Developer / Web Producer can own the site. So HTML and SEO experience is a must as this person must be able to use HTML to edit the website and drive up SEO rankings. You will also work with the wider content team, to ensure SEO efficiency.

Senior Python Developer - Indianapolis
\$65,000

Brief Overview:
Excellent opportunity has arisen to work with a rapidly growing SME who are going from strength to strength. The business offer specialist services that enables businesses see drastic ROI by allowing organisations to utilise data in order to provide insight that can be acted on in real time. Due to this growth the business have now exclusively partnered with Forsyth Barnes to search for a number of Senior Python Developers.

Responsibilities:
Responsible for the integration of user-facing elements developed by front-end developers. You will be expected to solve complex performance problems and architectural challenges whilst building efficient, testable, and reusable Python modules

Senior Python Developer - Requirements:

- Proven software development experience in Python
- Demonstrable knowledge of web technologies including HTML, CSS, JavaScript, AJAX etc.
- Good knowledge of relational databases, version control tools and of developing web services
- Experience in common third-party APIs (Google, Facebook etc)

Reference ID: abc
Job Types: Full-time, Permanent

SKILL OR TOOL

SKILL OR TOOL	WEB DESIGNER	WEB DEVELOPER
Photoshop	✓	✓
HTML	✓	✓
CSS	✓	✓
Typography	✓	✓
Color patterns/branding	✓	✓
Responsive Design Elements (the mobile layout)	✓	✓
JavaScript	✓	✓
jQuery	✓	✓
User Experience Design (wireframes, mockups, storyboards, user personas, user flows, etc.)	✓	✓
Git + Github	✓	✓

ADVANCED TOOLS

ADVANCED TOOLS	WEB DESIGNER	WEB DEVELOPER
Ruby/Ruby on Rails	✓	✓
PHP/WordPress	✓	✓
Java and/or CSS3	✓	✓
Vector graphics	✓	✓

Figure 5: Job board.




The player has tapped the ESC key, which opens the settings menu and displays their current report card statistics too. Entering the Settings screen will also pause the game clock.

Back – Exit the Settings screen (either into the Office or the Workstation mode).

Save – Opens the Save / Quit screen.

Quit – Exit the game. This will prompt the user to see if they want to save the game Y/N. (If Yes, then open the Save / Quit screen as mentioned above).

DAISY



EDIT CHARACTER

Overall Progress

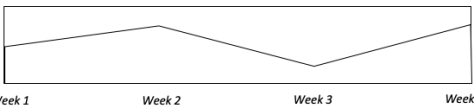
SETTINGS

REPORT CARD

B

Managers Feedback: You have a good aptitude for <web> programming. Perhaps spend a little more time getting to know your co-workers. Keep up the good work!

Performance Over Time



Game Statistics					
Tasks Passed 1 st Time	80%	Time Working	2hr 34m	Job Board Viewings	54
Web Ave. Score	98%	Time Walking	1hr 1m	Co-Worker Interact.	11
Data Ave. Score	75%	Time Talking	34m	Mentor Interact.	13
Game Ave. Score	54%	Time Wasted	15m	Mentors: Dave Smith,	...
Career Info Ave. Score	86%	Total Time	4h 24m		

Contact – Click to open an email to Email@address.com

Terms – Click to open a URL at: www.Url.com

The Managers Feedback text is pulled from the Conversation spread sheet, based on the report calculations.

Performance Over Time – Is a simple graph to show the Player report History per complete week within the game.

Game Statistics – Are explained in more detail along with the calculations elsewhere in this document.

NOTE – The mouse pointer is active on the Settings screen.

Overall Progress is shown as a progress bar (without values) per career track, since more tasks may be added over time (and you don't want a player to think they have gone backwards).



AREA	DESCRIPTION / CALCULATION	LOW	REPORT MOD	MED	REPORT MOD	HIGH	REPORT MOD
Tasks Passed 1 st Time	Tasks Attempted & completed in the same session (without help).	>40%	5	>60%	10	>80%	15
Web Ave. Score	Ave Sum of all Web test scores attempted (including repeat attempts)	>50%	5	>70%	10	>90%	15
Data Ave. Score	Ave Sum of all Data test scores attempted (including repeat attempts)	>50%	5	>70%	10	>90%	15
Game Ave. Score	Ave Sum of all Game test scores attempted (including repeat attempts)	>50%	5	>70%	10	>90%	15
Career Info. Ave. Score	Ave Sum of all Computing Career Info. test scores attempted (including repeat attempts)	>50%	5	>70%	10	>90%	15
Time Working	Time spent sat at a workstation (including Job Board Computer) – (NOTE: GameDay / Time at workstation)	<10%	5	<40%	10	>40%	15
Time Walking	Time spent walking in the office	<2%	5	<5%	10	>5%	15
Time Talking	Time spent interacting with co-workers	<2%	5	<5%	10	>5%	15
Time Wasted	Any other time different from above	>40%	5	<40%	10	<30%	15
Total Time	All above times total	-	-	-	-	-	-
Job Board Viewings	Number of clicks within the Job Board computer – Per Game Day Ave over 7 days.	>10	5	>20	10	>30	15
Co-Worker Interactions	Number of interactions with a co-worker. Per Game day, Average over 7 days.	2	5	5	10	10	15
Mentor Interactions	Number of interactions with a mentor. Per Game day, Average over 7 days.	1	5	3	10	5	15
Mentors	Assigned NPCs that will help the player on tasks and act as mentors.	-	-	-	-	-	-

GRADE	RANGE
A	>125
B	100 - 125
C	71 - 99
D	51 - 70
E	<50

The overall Report Grade is the sum of the points based on the range the Player is within.

The categories can be further extrapolated to pull the relevant 'Manager's Feedback' across 3 disciplines:

1. Programming (use the best Web, Data or Game score; range A, B OR C)
2. Socialising (Use Time Talking A, B OR C)
3. Overall Grade (Use Grade A, B, C, D OR E)

E.g.:

1. You have a good aptitude for <web> programming.
2. Perhaps spend a little more time socialising with your co-workers.
3. Keep up the good work!

Figure 6: Weekly report card.



Figure 7: Alignment between the game and theory.