

Manual Testing for Dungeons & Dragons & Digits

- Showing Creation of Profile + Logging In

Dungeons, Dragons, & Digits

DUNGEONS + DRAGONS + DIGITS

> by aszliah d., ryan m., priya n., + quentin n.

Username

priya

Password

•••••

Login

Don't have a login yet?

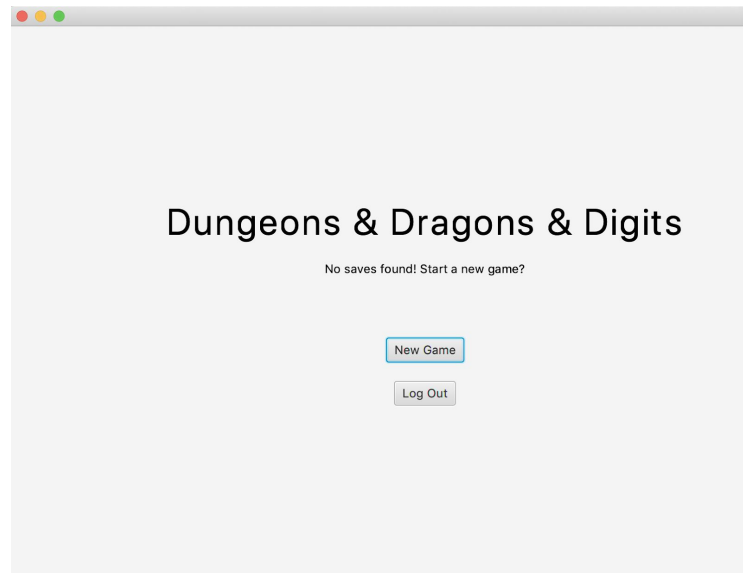
Create a Profile!

- User chooses username and password, and clicks Create a profile, which brings them to the following screen
- Show profile in server

```
ddd=# select * FROM "user";
```

id	username	password_hash
1	priya	pbkdf2:sha256:150000\$wY1xj8Do\$2c9c4fe39e19adfd4db184a331ef877568f42c32c6a6a4756192586799d65813
2	ryan	pbkdf2:sha256:150000\$cfIwUYmq\$64503f906a95f6250575fa765bcb2423a1d4ad3ac64f7c30bb6c908796807e66
3	quentin_nov	pbkdf2:sha256:150000\$AnZFQaMF\$d1080fcbdef6263ebcd6eba3e3ea9694130140644904ab38d7dfa2136b55721b
4	quentin_nov123	pbkdf2:sha256:150000\$QTakzjEn\$7308f230dca75d21d8d585f36c61f4323ee5d489b42d5fc90e40664caa87e75a
5	stuff	pbkdf2:sha256:150000\$gR4orz2Q\$1e139e4fa658766a21a6bef0badaf6ec335a2c27ad87aed469927a8970aeaf96
6	test_profile	pbkdf2:sha256:150000\$tZb2NeaI\$0b4869e8f8be99abba2d510bcf9378f4b45b1d0d392d5e5b8a1a48969a486ab9
7	ryanm	pbkdf2:sha256:150000\$gm5ssZzk\$73a74c5e4bacf4505487de8a0e6f5975501c2f6b21c68673958450d99254f414
8	aszliah	pbkdf2:sha256:150000\$lD09PflX\$c97d884e913c30d0eec2f2b8c9aa17ba5486646aeaa51def7d26f3de64f733c
9	duck	pbkdf2:sha256:150000\$6p8bTvWY\$41bfc671b45753a8c3ff324b477050dc39af17b25a3d29bfe12ef94668040861

- Showing How Log In Takes User to Main Menu Screen, Where They Can Start New Game



-
- Showing Initial Character Customization

-
- Initially, the character has the same name as the user and is a human. Given random ability scores, class, and alignment. Start off at Level 1 with 0 XP.

Customize your character here!

Update your character name here:

Name: Priya
Race: Elf
Alignment: Chaotic Good
Class: Fighter
Language : Elvish and Common

Strength: 14 Dexterity: 19
Constitution: 14 Intelligence: 14
Wisdom: 11 Charisma: 13

Speed : 30 feet
XP: 0 points
Level: 1
Weapon: Sword

-
- Upon changing race, new instance of character with that race is created which changes their language, alignment, speed etc.

Customize your character here!

Update your character name here:

Name: Paul
 Race: Halfling
 Alignment: Chaotic Good
 Class: Fighter
 Language : Halfling and Common

Strength: 14 Dexterity: 14
 Constitution: 16 Intelligence: 12
 Wisdom: 11 Charisma: 10

Speed : 25 feet
 XP: 0 points
 Level: 1
 Weapon: Claws

-
- User can change the name of the character, their class, alignments, and weapon.
- This customization can occur during the game as well.
- Loading Saved Game

Dungeons & Dragons & Digits

An existing save was found:

Name: priya
 Level: 1 (0 XP)
 Race & class: Human Fighter
 HP: 15

-
- Upon clicking continue, continues saved game
- Show Character and Saved Game for priya

```
ddd=# select * FROM "character" where game_id = 6;
```

id	game_id	character_name	level	xp	race	language	character_class	speed	hitpoints	strength	dexterity	constitution	intelligence	wisdom	charisma	active_weapon	healing_die	strength_modifier	dexterity_modifier	constitution_modifier	intelligence_modifier	wisdom_modifier	charisma_modifier
18	6	priya	1	0	Human	Common	Fighter	30	15	15	17	15											
12	11	17	Sword		10		1	2		1		0											
17	6	priya	1	30	Dwarf	Dwarfish and Common	Wizard	25	20	16	16	15											
12	7	12	Wand		10		2	2		1		0											
16	6	p		1	0	Dwarf	Dwarfish and Common	Rogue	25	15	14	12	18										
14	11	12	Bow		10		1	0		2		1											

(3 rows)

```
ddd=#
```

The screenshot shows a web application interface for a character profile. On the left, there is a sidebar with the following information: Name: priya, Race & Class: Human Fighter, Level: 1 (0 XP), HP: 15. Below this, there are buttons for 'Save', 'Main Menu', and 'Customize Character'. The main content area on the right displays the text 'You stand idly by. You yawn.' and two buttons: 'Venture out' and 'Pick a fight'.

- Showing that you cannot create a profile for an existing login

The screenshot shows a web application interface for a login screen. The title is 'Dungeons, Dragons, & Digits'. Below the title, there is a large heading 'DUNGEONS + DRAGONS + DIGITS' and a subtitle 'by ASHLEY J. GYAN M., PRIYA N., + QUEENIE N.'. The login form includes fields for 'Username' (containing 'priya') and 'Password' (masked with dots). Below the password field is a 'Login' button. A red error message is displayed below the login button: 'Sorry, the username "priya" has already been taken!'. Below the error message is a 'Create a Profile!' button.

- Showing that you cannot sign in with an incorrect password

Dungeons, Dragons, & Digits

DUNGEONS + DRAGONS + DIGITS

> BY ASYLIAH J., GYAN M., PRIYA N., + QUEENIE N.

Username

Password

Login

Wrong username and/or password!

Create a Profile!

- Showing Standard Event Example

You've begun to lose track of how long you've been walking, but soon you come across a quiet pond surrounded by clumps of weeds and clusters of small, magenta spotted mushrooms. There's a strange thickness in the air, almost sickly sweet.

You feel uneasy, the way you feel when you lay a hand upon an ache, a cut, a burn. That fleeting sense of uncertainty, that slightest wobble in the pillars that uphold your faith, that 'what if': what if this, finally, is too much for you?

You don't feel unsafe here, only...cautious.

Drink from the pond

Eat a mushroom

Leave the pond alone

○

- If you choose drink from pond...

You walk up to the pond and kneel by its side. The water looks clean, clean enough that you can see all the way through to the stone-strewn bottom of the pond, but strangely you can't see your reflection on the surface.

Carefully, you bend down, dip cupped hands into the water, and drink.

The water tastes good at first, but after a few seconds, you realize that it leaves amore noticeable, metallic tang in the back of your mouth.

You stand back up - then wince as your stomach suddenly cinches. The pain is quickly gone; it's as if someone pinched your side. You don't notice anything else... (For now?)

You should probably move on.

You took 2 damage!

Continue

○

- Showing Random Math Quiz Example

Grade 1

Solve this quiz in order to continue!

$$16 + 77 = ?$$

Enter your solution here:

Correct!! You may now continue by clicking the button at the bottom!

Too hard? Try a new quiz:

Enter your grade level here! We support grades 1 through 5

Grade 5

Solve this quiz in order to continue!

$$42780 \div 8556 = ?$$

Enter your solution here:

Correct!! You may now continue by clicking the button at the bottom!

Too hard? Try a new quiz:

Enter your grade level here! We support grades 1 through 5

Failing quiz - continue button invisible; message indicates solution is incorrect

Solve this quiz in order to continue!

$$49 - 6 = ?$$

Enter your solution here:

Sorry, but that is incorrect. Please try again.

Too hard? Try a new quiz:

Enter your grade level here! We support grades 1 through 5

Successful Quiz - continue button appears; message indicates solution is correct

Solve this quiz in order to continue!

$$49 - 6 = ?$$

Enter your solution here:

Correct!! You may now continue by clicking the button at the bottom!

Too hard? Try a new quiz:

Enter your grade level here! We support grades 1 through 5

- Showing generation of multiple random quizzes (printed to the console)

```
Grade level = 1 | 2 + 3 = 5
Grade level = 2 | 65 + 719 = 784
Grade level = 3 | 43 / 43 = 1
Grade level = 4 | 951 / 951 = 1
Grade level = 5 | 3588 * 353 = 1266564
Grade level = 1 | 99 - 3 = 96
Grade level = 2 | 643 - 12 = 631
Grade level = 3 | 88 / 4 = 22
Grade level = 4 | 13 * 86 = 1118
Grade level = 5 | 66339 / 273 = 243
Grade level = 1 | 96 + 7 = 103
Grade level = 2 | 3549 + 9587 = 13136
Grade level = 3 | 6 / 6 = 1
Grade level = 4 | 440 / 110 = 4
Grade level = 5 | 617 / 196 = 3 R 29
Grade level = 1 | 20 + 30 = 50
Grade level = 2 | 418 + 9238 = 9656
Grade level = 3 | 9 * 9 = 81
Grade level = 4 | 5950 / 50 = 119
Grade level = 5 | 3078 / 400 = 7 R 278
Grade level = 1 | 6 - 3 = 3
Grade level = 2 | 218 - 57 = 161
Grade level = 3 | 6 * 3 = 18
Grade level = 4 | 59 * 31 = 1829
Grade level = 5 | 611 / 536 = 1 R 75
```

Difficulty progresses as expected with grade level

- Dice Rolling:

```
Rolling a 6-sided die: 6
Rolling a 20-sided die: 9
Rolling a 10-sided die 3 times and summing all the rolls: 10
Rolling a 20-sided die 10 times: [2, 9, 3, 8, 15, 16, 2, 17, 9, 19]
Rolling a 20-sided die with a minimum value of 15: 15
Rolling a 20-sided die with a minimum value of 15 (10 times): [17, 17, 16, 16, 15, 17, 20, 17, 20, 17]
```

All values fall within expected ranges

Testing combat

Combat creation and accurate outcome (JUnit):

```
CombatTest
Tests passed: 2 of 2 tests - 38 ms
CombatTest (org.openfx) 38 ms
testCombatOutcomes 35 ms
testCombatCreation 3 ms

*****
Testing Combat Outcomes
Combat outcome String should indicate a player victory:
Once more, the ground shakes as Growly stumbles around, but this time they only make it two steps before their legs give out

You've earned 40 XP.
Combat outcome String should indicate a player defeat:
Missy has defeated you.

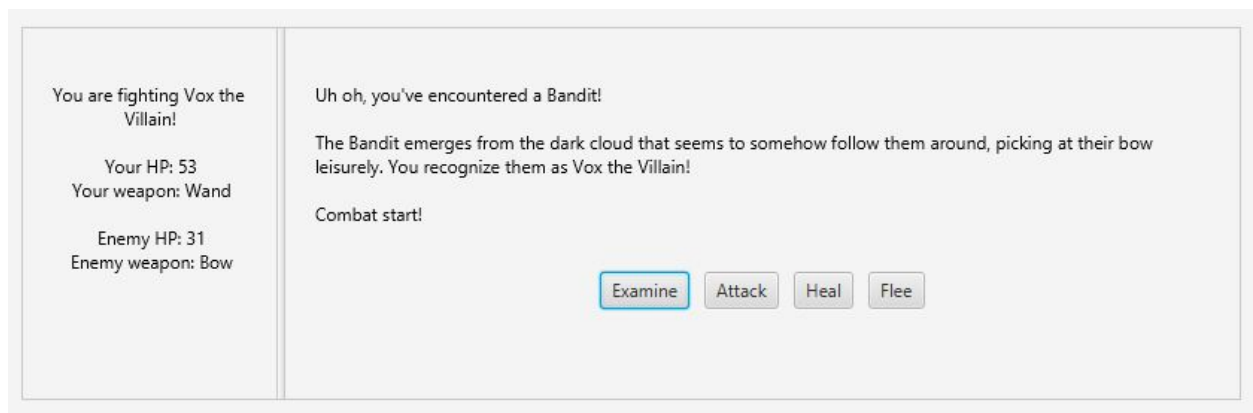
You've earned 10 XP.

*****
Testing Combat Creation
Type of monster: Corrupted Mage
Monster name: Octavian the Pink

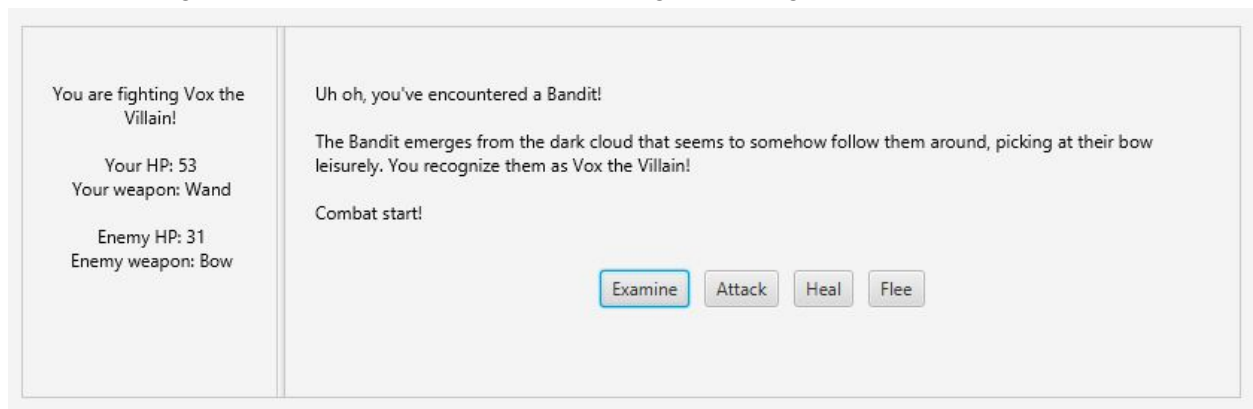
Process finished with exit code 0
```

Manual Combat testing:

- Making sure Combat occurs as one of the random events when choosing “venture” from the Game screen:



- Making sure Combat occurs when choosing “pick a fight” from the Game screen:



- Choosing “Examine” displays the Monster’s unique description only once:

<p>You are fighting Jum!</p> <p>Your HP: 146 Your weapon: Wand</p> <p>Enemy HP: 23 Enemy weapon: Club</p>	<p>Uh oh, you've encountered a Goblin!</p> <p>Jum the Goblin lopes towards you... It looks like they want a fight!</p> <p>Combat start!</p> <p>A harried-looking goblin, with mottled green-gray skin and beady black eyes. It carries a small club that it occasionally thumps on the ground for no apparent reason other than to entertain itself.</p> <div> <input type="button" value="Examine"/> <input type="button" value="Attack"/> <input type="button" value="Heal"/> <input type="button" value="Flee"/> </div>
---	--

- Choosing attack prints a description of the player and enemy turn.
- Successfully landing an attack reduces HP by the damage dealt:

<p>You are fighting Aiden the Bronze!</p> <p>Your HP: 38 Your weapon: Wand</p> <p>Enemy HP: 42 Enemy weapon: Staff</p>	<p>It's your turn!</p> <p>You feel magic coursing from your palm into your wand, lashing through its length and then ripping through the air!</p> <p>Aiden the Bronze was hit!</p> <p>Aiden the Bronze takes 18 damage.</p> <p>It's Aiden the Bronze's turn!</p> <p>Aiden the Bronze lands their attack!</p> <p>Aiden the Bronze attacks with their Staff for 15 damage!</p> <div> <input type="button" value="Examine"/> <input type="button" value="Attack"/> <input type="button" value="Heal"/> <input type="button" value="Flee"/> </div>
--	--

- When dodging, health is not reduced:

<p>You are fighting Jum!</p> <p>Your HP: 146 Your weapon: Wand</p> <p>Enemy HP: 9 Enemy weapon: Club</p>	<p>It's your turn!</p> <p>A blazing cerulean streak of magic shoots out from your wand!</p> <p>Jum was hit!</p> <p>Jum takes 14 damage.</p> <p>It's Jum's turn!</p> <p>Jum tries to attack, but you manage to dodge!</p> <div> <input type="button" value="Examine"/> <input type="button" value="Attack"/> <input type="button" value="Heal"/> <input type="button" value="Flee"/> </div>
--	--

- Healing is allowed every 4 turns. When selected, the player regains the indicated amount of HP:

<p>You are fighting Pif!</p> <p>Your HP: 121 Your weapon: Wand</p> <p>Enemy HP: 34 Enemy weapon: Club</p>	<p>It's your turn!</p> <p>You close your eyes and reach out to your well of strength, allowing it to spill back into your being... You reopen your eyes with a newfound sense of strength. You healed 17 HP!</p> <p>It's Pif's turn!</p> <p>Pif sticks out their tongue and cackles at you.</p> <p>Pif hit you!</p> <p>Pif drops to a crouch, then suddenly launches themselves into the air with a warbling screech! They swing their club over their head in a surprising show of strength, then bring it down in a special attack that deals 21 damage!</p> <div style="text-align: center;"> <input type="button" value="Examine"/> <input type="button" value="Attack"/> <input type="button" value="Heal"/> <input type="button" value="Flee"/> </div>
---	--

- Player must wait until cooldown is over to heal again and instead choose a different action:

<p>You are fighting Pif!</p> <p>Your HP: 121 Your weapon: Wand</p> <p>Enemy HP: 34 Enemy weapon: Club</p>	<p>Please wait 4 turns before trying to heal again!</p> <div style="text-align: center;"> <input type="button" value="Examine"/> <input type="button" value="Attack"/> <input type="button" value="Heal"/> <input type="button" value="Flee"/> </div>
---	---

- Reducing the opponent to 0 HP first wins the combat:

<p>You are fighting Jum!</p> <p>Your HP: 125 Your weapon: Wand</p> <p>Enemy HP: 9 Enemy weapon: Club</p>	<p>Jum wobbles around with a confused garble, before gravity claims them and they crash to the ground. Congratulations, you've defeated Jum the Goblin!</p> <p>You've earned 30 XP.</p> <div style="text-align: center;"> <input type="button" value="Return"/> </div>
--	--

Manual standard event testing:

- Choosing to "venture" can produce a standard event with its unique 3 choices:

<p>Name: Troy Bolton Race & Class: Halfling Wizard Level: 2 (434 XP) HP: 121</p>	<p>Although you can tell by the height of the sun in the sky that it should be no later than midday, you soon find the sky quickly darkening around you.</p> <p>Around you?</p> <p>That's definitely not right. As your surroundings begin to grow darker and darker, you realize that it isn't because of the sky, but instead because of a heavy black cloud growing around you!</p> <p><input type="button" value="Shout for help"/> <input type="button" value="Run out of the fog"/> <input type="button" value="Hold your breath"/></p>
--	---

- Choosing an option prints the outcome of that option:

<p>Name: Troy Bolton Race & Class: Halfling Wizard Level: 2 (434 XP) HP: 121</p>	<p>You force yourself to calm down and drop to a crouch, eyes closed and head in your hands. You suck in one last breath, and then hold it...</p> <p>and hold it...</p> <p>and hold it.....and hold it. Amazingly, you manage to do it! When you next open your eyes, the darkness has cleared, and you are crouching in the middle of the road. Whoops! You quickly move out of the way. You glance behind you to see what could have caused that strange event, but there's no one else here except you and the trees.</p> <p>You gained 15XP!</p> <p><input type="button" value="Continue"/></p>
--	---

- Reward/consequence is given to the player:

<p>Name: Troy Bolton Race & Class: Halfling Wizard Level: 2 (449 XP) HP: 121</p> <p>Save</p> <p>Main Menu</p> <p>Customize Character</p>	<p>You stand idly by. There's a whole day ahead of you! What should you do next?</p> <p>Venture out Pick a fight</p>
--	--

(434 XP -> 449 XP)

Manual quiz event testing:

- Choosing "venture" can produce a quiz event where the player can choose to accept or refuse the challenge:

<p>Name: Troy Bolton Race & Class: Halfling Wizard Level: 2 (481 XP) HP: 123</p>	<p>Out of nowhere, you begin to hear a strange humming...</p> <p>You blink in confusion, looking around. Where is that coming from?</p> <p>The air suddenly begins to ripple before you, humming and humming until..."pop!" A small pixie has appeared!</p> <p>"Greetings! My name is Noah," giggles the pixie, their wings fluttering about.</p> <p>Now you understand where that humming was coming from!</p> <p>"I have a little riddle for you, if you dare accept the challenge! I'll even reward you if you get it right." Noah smiles mischievously. "What do you say?"</p> <p>Accept Refuse</p>
--	---

- Accepting the challenge shows the generated Math Quiz:

Solve this quiz in order to continue!

$$12 + 12 = ?$$

Enter your solution here:

Submit

Too hard? Try a new quiz:

New Quiz

Enter your grade level here! We support grades 1 through 5

Submit Grade Level

- Successfully solving the problem rewards the player:

Name: Troy Bolton
Race & Class: Halfling Wizard
Level: 2 (481 XP)
HP: 123

You managed to solve the riddle!

You gained 2 Strength!

Return