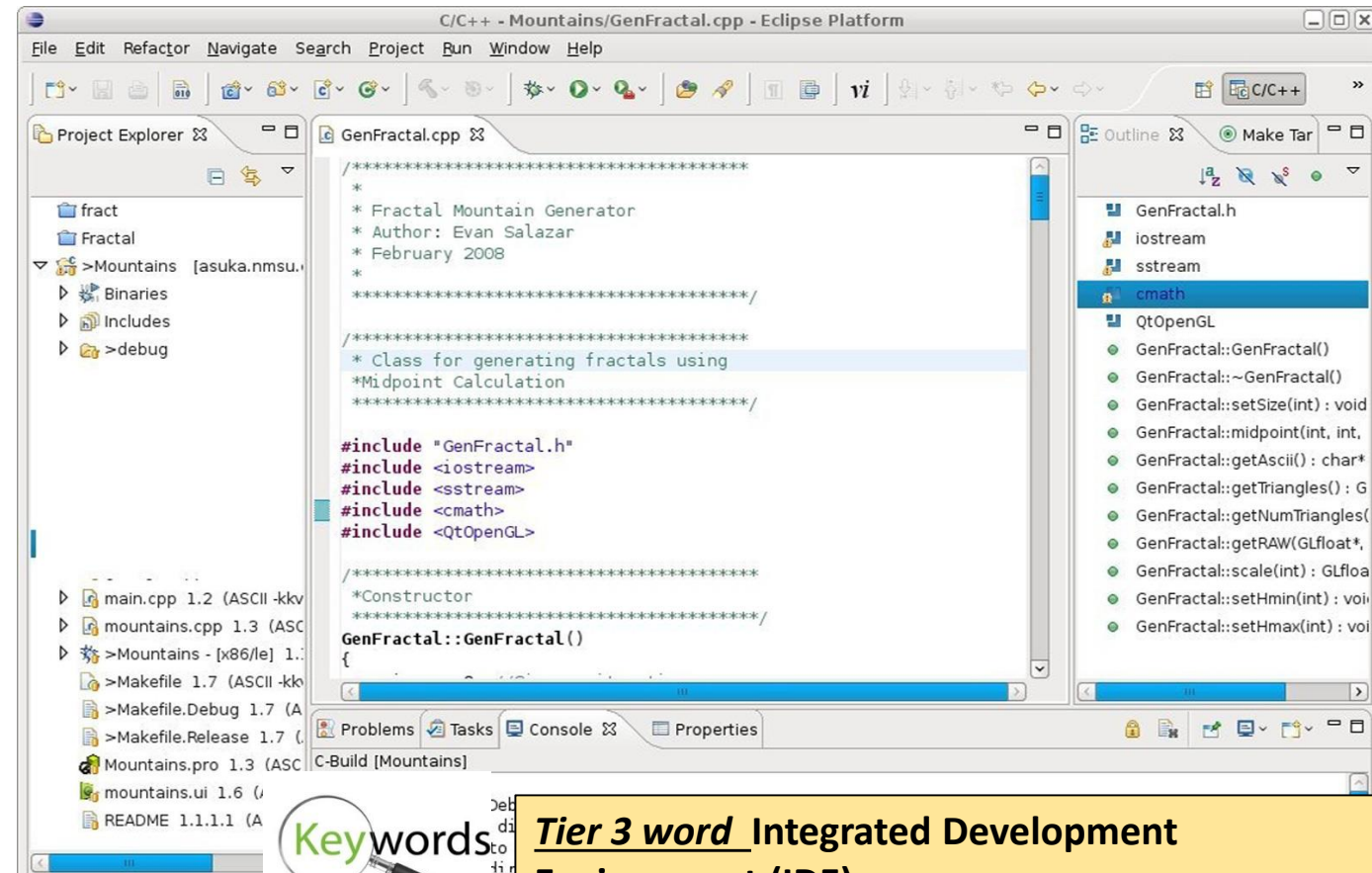**Big Question: How does an Integrated Development Environment (IDE) help a programmer?**

Learning Intention

To develop knowledge by describing what a IDE is

To secure understanding by Understanding the ways in which the IDE assists in the development and debugging of programs

To achieve excellence by Explain the individual role of an IDE tools in developing and debugging programs.

Keywords

Tier 3 word Integrated Development Environment (IDE)
provides programmers with various tools that are needed to create computer programs.

```python
import ...
current_path = os.getcwd()
sys.path.insert(0, os.path.join(current_path, "../pymunk-4.0.0"))
import pymunk as pm
from characters import Bird
from level import Level


pygame.init()
screen = pygame.display.set_mode((1200, 650))
redbird = pygame.image.load(
    "../resources/images/red-bird3.png").convert_alpha()
background2 = pygame.image.load(
    "../resources/images/background3.png").convert_alpha()
sling_image = pygame.image.load(
    "../resources/images/sling-3.png").convert_alpha()
full_sprite = pygame.image.load(
    "../resources/images/full-sprite.png").convert_alpha()
rect = pygame.Rect(181, 1050, 50, 50)
cropped = full_sprite.subsurface(rect).copy()
pig_image = pygame.transform.scale(cropped, (30, 30))
buttons = pygame.image.load(
    "../resources/images/selected-buttons.png").convert_alpha()
pig_happy = pygame.image.load(
    "../resources/images/pig_failed.png").convert_alpha()
stars = pygame.image.load(
    "../resources/images/stars-edited.png").convert_alpha()
rect = pygame.Rect(0, 0, 200, 200)
star1 = stars.subsurface(rect).copy()
rect = pygame.Rect(204, 0, 200, 200)
star2 = stars.subsurface(rect).copy()
rect = pygame.Rect(426, 0, 200, 200)
star3 = stars.subsurface(rect).copy()
rect = pygame.Rect(164, 10, 60, 60)
pause_button = buttons.subsurface(rect).copy()
rect = pygame.Rect(24, 4, 100, 100)
replay_button = buttons.subsurface(rect).copy()
rect = pygame.Rect(142, 365, 130, 100)
```

IDE

1. **What does IDE stand for?**

2. **What does an IDE do?**

3. **Write good notes on the following IDE tools:**
- Editor
- Automatic
  - formatting
  - line numbering
  - colour coding
- Linker
- Libraries
- routines/subroutines
- standard functions
- Loader
- Debugger
- Syntax error detection
- Error diagnostics
- Trace
- Break point
- Variable watch
- Memory inspector
- Statement completion
- Code optimisation
- Compilation
- Interpreter

Create a Mind map on Double page spread

Learning Intention

To develop knowledge by describing what a IDE is

To secure understanding by Understanding the ways in which the IDE assists in the development and debugging of programs

To achieve excellence by Explain the individual role of an IDE tools in developing and debugging programs.