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ABUSAYEN

IT-22008

☐ Difference between abstract class and interface

Abstract class

1. Can have both abstract and non-abstract methods.
2. can have constructors.
3. can have instance variables

4. A class can extend only one abstract class

5. Uses extends keyword

Interface

1. All methods are abstract by default
2. cannot have constructors.
3. cannot have instance variables.

4. A class can implement multiple interfaces.

5. Uses implements keyword.

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IT-22008

☐ When to use interface and When to use abstract class (story & Application)

Imagine you building a system for platform like youtube, where different kinds of content creator upload different kinds of content. Video, podcast, ~~Blog~~ ^{blog} etc

Use an abstract class for —

- Shared behaviour across all creator

- A common base type

Use interface for —

- Optional abilities

- Behaviour that can be added to any creator

Abstract class :

```
abstract class content {  
    String name;  
    String contentTitle;  
    public content(String name, String contentTitle) {  
        this.name = name;  
        this.contentTitle = contentTitle;  
    }  
    public void uploadContent() {  
        System.out.println("name + " + "upload; " + contentTitle)  
    }  
}
```

Interface :

```
interface likeStreamable {  
    void goLive();  
    interface monetizable {  
        void showAds();  
    }  
    interface collaborator {  
        void collaborateWith(String partnerName)  
    }  
}
```


class video creator extends content creator implements
live streamable, monetizable
public video creator (String name, String content title)
super (name, content title);

@Override

public void createContent () {
system.out.println (name + " is editing"); }

system.out.println (name + " is

public void goLive () {
system.out.println (name + " is live now!"); }

system.out.println (name + " is

public void showAds () {
system.out.println (name + " is showing ads"); }

system.out.println (name + " is showing ads"); }

public void acceptSponsorship () {
system.out.println (name + " accepted a sponsorship

system.out.println (name + " accepted a sponsorship

class Blogger extends

collaborator {

public Blogger (String name, String content title

{
super (name, content title); }

public void createContent () {

system.out.println (name + " is writing"); }

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Public void collaborateWith(String partnerName)
{
 System.out.println(name + " is collaborating with
 " + partnerName + " on a beg."; }
}