

# Background Applications

# Introduction

- ❖ Given the small screen mobile telephones have the concept of having an application running in the background gains a growing popularity.

# Services

- ❖ Unlike activities, that present a rich graphic user interface, the services run in the background.
- ❖ The services can update the content providers, fire intents, and trigger notifications.
- ❖ The services are the perfect mechanism for performing regular processing and handle events.

# Background Threads

- ❖ In order to ensure that our application remains responsive we should move all slow time consuming operations off the main application thread onto a child thread.
- ❖ All android application components, including the activities, the services, and the broadcast receivers, run on the main application thread. Time-consuming processing might block all other components including services and visible activities.

# Background Threads

- ❖ Using background threads we will shall also avoid from getting the “Application Unresponsive” Dialog box. This dialog is popped up when activities don't respond to input within 5 seconds and when broadcast receivers don't complete their onReceive handlers within 10 seconds.

# Making Toasts

- ❖ The toast is a transient dialog box that remains visible for only a few seconds before fading out. The toasts don't steal focus and are non-modal, so they don't interrupt the active application.
- ❖ Using toasts is ideal for informing the user about various background events without forcing him to start running an activity or read a notification.

# Making Toasts

- ❖ The `Toast` class includes the static `makeText` method that creates a standard Toast display window.

...

```
Context context = getApplicationContext();  
String str = "The snow height in mount hermon is 60cm";  
int duration = Toast.LENGTH_SHORT;  
Toast toast = Toast.makeText(context, str, duration);  
toast.show();
```

...

# Making Toasts

- ❖ We can modify a Toast by setting its display position and assigning an alternative view or layout.



# Other System Services

- ❖ The various available system services allow us to activate the flash, vibrate the phone, make sounds etc.